Holden

JACKAROO

OWNER'S HANDBOOK

UBS SERIES

Owner's Name..... Model Name .....

Address ..... Reg. No.....Eng. No. .....

Town..... Odometer Reading .....

State.....Postcode..... Date of Purchase.....

(17 character I.S.O.V.I.N.) Vehicle Identification Number.....

Vehicle Identification Certificate

Selling
Dealer's
Stamp & Signature .....

CHANGE OF ADDRESS/OWNERSHIP

It may be necessary for Isuzu-General Motors Australia Limited, Aust. Co. No. 006 962 572 (hereinafter I-GM) to contact I-GM owners from time to time. Therefore, records are kept of owner's names and addresses.

So we can keep these records up to date, please complete the form on pages 8-35 or 8-37 and post to the address shown on the back of this form if:

a) you change your address

b) you have purchased this vehicle from a previous owner.

Part No. 92074160
July 1992 (Print 1)

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction.

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- ACCIDENT PROCEDURES Page 4-2

- WARRANTY Page 5-2
  familiarise yourself with the conditions

- CHANGING A WHEEL Page 4-4

- OTHER EMERGENCIES Page 4-1

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- LIST OF DEALERS ACROSS AUSTRALIA Page 5-9

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This handbook applies to *all* 1992 UBS series models. As specifications may vary depending on the model and options included you may find reference to some equipment not installed in your vehicle.

All information, illustrations and specifications in this handbook are based on the latest production information available at the time of printing. Isuzu-General Motors A.L. reserves the right to make changes at any time without notice and without incurring any obligation.

Printed on Australian-made100% recycled paper

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The first page of each chapter contains a "chapter index"

Chapter 1 ..... **THE DASH** ..... page 1-1

The first page of this chapter illustrates the dash and identifies the gauges, warning lights and controls. Page reference numbers are listed next to each item.

Chapter 2 ..... **KNOW YOUR VEHICLE** ..... page 2-1

This section covers the other features of your vehicle, not appearing on the dash. Features covered include locks, seat adjustment, seat belts, console, interior light etc.

Chapter 3 ..... **STARTING, DRIVING & TOWING** ..... page 3-1

Please read chapters 1 and 2 to familiarise yourself with your vehicle before proceeding to this section. This explains the steering lock, how to start your vehicle and when to change gears. There are also some precautions and fuel consumption notes as well as information when loading your vehicle or towing a trailer.

Chapter 4 ..... **ACCIDENTS & EMERGENCIES** ..... page 4-1

The first two pages of this chapter show what to do at the scene of an accident, including giving medical assistance. Following, are some emergency procedures, including wheel changing, starting when the battery is flat, engine overheating, draining water separator (diesel) and bleeding the fuel system (diesel).

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Chapter 5..... **WARRANTY, HOLDEN WISE, AUTHORISED HOLDEN DEALERS, CUSTOMER ASSIST.** ..... page 5-1

This sets out the terms of your warranty, lists the Holden Dealers across Australia and explains what to do if you need Customer Assistance.

Chapter 6..... **WEEKLY CHECKS** ..... page 6-1

there are a few simple checks that the owner must make. These are clearly shown and illustrated. They include checking the oil, water, automatic transmission fluid, brake and clutch fluid levels. It also shows how to top up the washer fluid and check your tyres.

Also included are instructions about cleaning your vehicle.

Chapter 7..... **SPECIFICATIONS & EMISSIONS** ..... page 7-1

This lists specifications, capacities and general replacement parts, including oil, coolant, and fluids. Also included is information relating to the labels and identification plates fitted to your vehicle.

Chapter 8..... **SERVICE/MAINTENANCE SCHEDULE** ..... page 8-1

This shows when your vehicle requires servicing and what is done at each service. Also included are the coupons that are used when you take your vehicle to a Holden Dealer to be serviced.

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THE DASH

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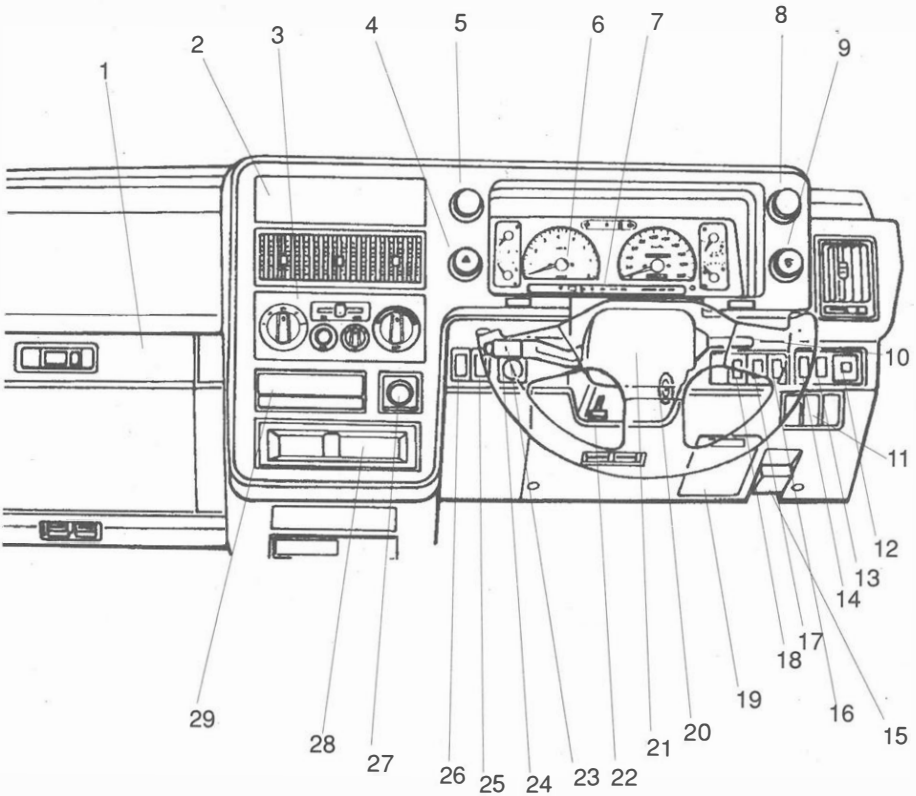
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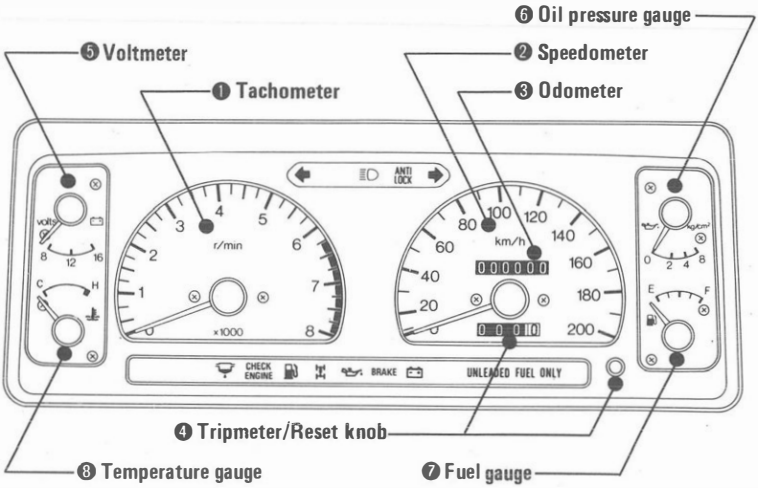


This illustration is based on a petrol engine model

❶ TACHOMETER

The tachometer records engine speed in revolutions per minute (r.p.m.).

Continued or sustained operation in the RED zone could cause serious engine damage.

❷ SPEEDOMETER

The speedometer gauge indicates vehicle speed in kilometres per hour.

❸ ODOMETER

The odometer records the distance travelled since the vehicle was built.

❹ TRIPMETER AND RESET KNOB

The tripmeter records kilometres travelled on a particular trip. Push the reset knob to reset the reading to zero.

❺ VOLTMETER

The voltmeter indicated the condition of the electrical charging system when the ignition is turned ON.

Needle movement to the extreme left side of the gauge indicates a 'too low' voltage condition, movement to the extreme right indicates a 'too high' voltage condition. In either case the electrical charging system will require checking. Normal voltage is indicated when the meter needle is within the grey line.

❻ OIL PRESSURE GAUGE

The oil pressure gauge indicates the pressure of oil in the engine. Normal oil pressure is indicated when the needle is within the grey line when the engine is running.

The oil pressure varies greatly with the temperature and engine speed. Therefore, if the needle does not move at all, or will not move when the engine speed is increased, stop the engine immediately and check the oil level (after allowing approx 5 mins for the oil to settle). Refer page 6-3 for oil level checking information.

If the oil level is normal, have the system checked at your nearest Holden Dealer. Do not run the engine with low oil pressure as this could lead to serious engine damage.

❼ FUEL GAUGE

The fuel gauge indicates the approximate level of fuel within the fuel tank when the ignition is ON. "F" represents full (85 litres) and "E" represents empty.

Note that due to movement of fuel in the tank, the needle may move during turns, stop and acceleration.

Refer to information on the inside of the rear cover of this Handbook when refuelling.

❽ TEMPERATURE GAUGE

The temperature gauge indicates the engine coolant temperature when the ignition is ON. "C" represents cold, "H" represents hot. Normal coolant temperature is indicated when the needle is within the grey line.

If the needle moves to the extreme right (red area) of the gauge, an overheat condition is indicated. Refer page 4-6 for overheating instructions, as continued operation of an over heated engine can result in serious engine damage.

TURN SIGNAL

The appropriate green arrow will continuously flash while the lever on the right side of the steering column is moved (refer page 1-10) and the key is turned to ON.

If the green arrow does not come on or if it does not flash, check the bulb and fuse.

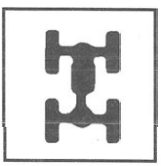
NOTE: Both arrows will flash when the Hazard Warning Flashers are switched on, refer page 1-11.

LOW FUEL

To check that the bulb is working, the light will come on when the key is turned to ON, before the engine is started. If the light comes on when driving, it indicates that the fuel tank is nearly empty.

Due to movement of fuel in the fuel tank, driving on a winding road may cause the light to flicker on and off when the fuel level is getting low.

4 WHEEL DRIVE



This light comes on when the transfer lever is shifted into 4H or 4L position and the key is turned ON.

Note that this does not necessarily mean that the vehicle is driving in 4 wheel drive, refer page 3-9.

OIL PRESSURE

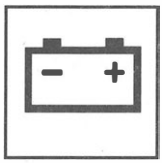
To check that the bulb is working, this light comes on when the key is turned to ON - before the engine is started.

Occasionally the light may flicker momentarily when the engine is running. This does not indicate a system problem. However, if the light remains on during normal engine operation it indicates that the oil pressure is dangerously low. Stop immediately and check the engine oil level. If the level is normal, have the system checked at your nearest Holden Dealer. Do not run the engine with this light on, as this could lead to serious engine damage.

HIGH BEAM

This light is displayed when the headlight high beams are in use.

BATTERY



To check that the bulb is working, this light is displayed when the key is turned to ON - until the engine is started.

Note that the light may stay on when the engine is idling but should go out when the engine speeds up. If the light comes on while driving a state of "low charge" is indicated. This should immediately be seen to - check for a loose or broken drive belt.

BRAKE

This light will come on when the park brake is applied and the key is turned ON. The light only indicates whether the lever is up or down, not how well the park brake is applied - always pull the lever as far up as possible. Never drive with the park brake applied.

If this light comes on when you are driving (and the park brake lever is fully down) it indicates that a fault is detected in the brake system. Pull off the road and stop carefully. Remember that

- stopping distances may be longer,
- that you may have to push harder on the brake pedal
- that the brake pedal may go down more than usual.

Check the brake fluid level in the master cylinder. Refer page 6-6 for information. Note that the warning light does not eliminate the need for the weekly brake fluid level check.

For your safety the vehicle should not be driven when the light is on.

DIESEL ONLY

If your vehicle has a diesel engine then the light (coming on while driving) could indicate low brake vacuum. Note that depressing the brake pedal repeatedly may cause the brake warning light to come on when the engine is idling. This is because more vacuum is being used than being created. The light should go out when the engine speeds up.

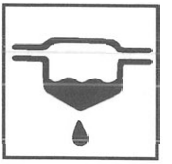
CHECK ENGINE (petrol only)

Your vehicle is fitted with an Electronic Engine Management System.

To check that the bulb is working, the light comes on when the key is turned to ON, before the engine is started (the light will stay on for a short time after the engine starts).

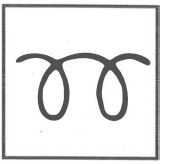
If the CHECK ENGINE light comes on whilst driving (either intermittently or continuously) it indicates that a fault has been detected in the Engine Management System. Although the vehicle may still be driveable and does not require towing, see your Holden Dealer as soon as possible for an inspection of the System, as continued driving could affect fuel consumption and engine performance.

FUEL FILTER (diesel only)



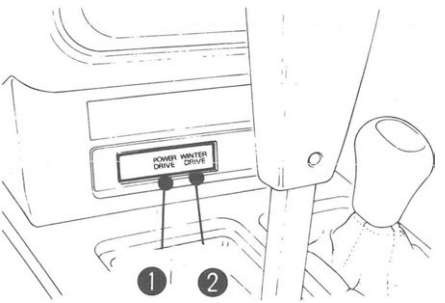
Under certain circumstances water may be taken into the fuel tank, and to prevent water from reaching the vital parts of the fuel system a water separator is installed. When the level of water trapped within the water separator reaches the specified level, the indicator light comes on. If the light comes on and remains on while the engine is running, it indicates the need for draining the water separator, refer page 4-10.

GLOW PLUG (diesel only)



Your diesel engine has a special starting system. Turning the key to ON starts the system and turns on the indicator light.

When the glow plugs have heated the engine enough for it to start, the light will go out. This tells you the engine is ready to be started. Waiting time varies considerably with engine and air temperatures.

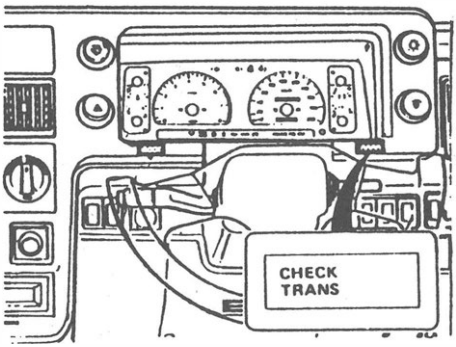


① POWER DRIVE (auto trans only)

The POWER DRIVE light will come on when the engine is running and 'power drive' selected, refer page 3-7.

② WINTER DRIVE (auto trans only)

The WINTER DRIVE light will come on when the engine is running, 'winter drive' is selected and the transmission T-Bar lever is in "D", refer page 3-7.



❶ CHECK AUTOMATIC TRANSMISSION (if fitted)

To check that the bulb is working, this light is displayed when the key is turned to ON. If this light comes on while driving it indicates that the automatic transmission fluid temperature is high.

You should stop a soon as it is safe to do so, leave the engine idling and the T-Bar lever in "P". If the light goes out then you may resume driving. If the light does not go out you should have the transmission checked by a Holden Dealer as soon as possible.

NOTE:

- If the light comes on while you are driving at high speed, ensure the transfer lever is set to 2H and the wheel hubs set to *free*.
- If the light flashes it means that the computer controlling the transmission has found a problem. The vehicle can still be driven when the light is flashing, but the computer may put the transmission into 'safety mode' (refer page 3-6) - the transmission should be checked by your Holden Dealer as soon as possible.

❷ AUTO CRUISE (if fitted)

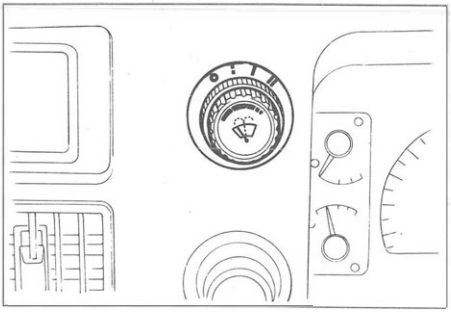
The AUTO CRUISE light will come on when the cruise control switch is turned to the ON position, refer page 1-17.

❸ CRUISE MAIN (if fitted)

The CRUISE MAIN light will come on when the cruise control is maintaining vehicle speed, refer page 1-17.

NOTE: Wipers and washers are only operational when the key is turned to ON.

WINDSHIELD WIPERS/WASHERS



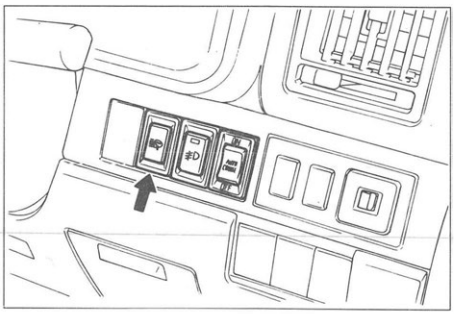
The wiper/washer knob is located to the left of the instrument cluster.

Do not operate the wipers if the windshield glass is dry. It may scratch the glass. To obtain a spray of water onto the glass, push in the centre of the knob as long as required. This will automatically turn on the wipers for a few sweeps.

Twist the outer section of the knob clockwise from the **O** OFF position to the first stop for INTERMITTENT wiper speed, to the second stop for NORMAL speed and to the last stop for HIGH speed.

On some models, the speed of the INTERMITTENT wipe is variable, by rotating the centre of the knob. Clockwise to increase wiper speed, anti-clockwise to slow down.

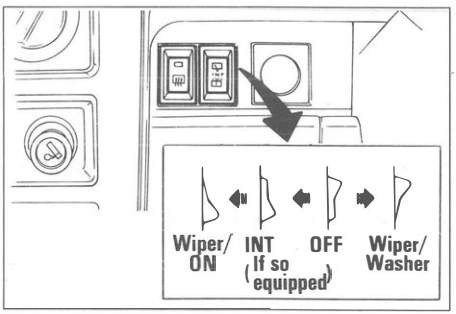
HEADLIGHT WASHERS/WIPERS (if fitted)



The wiper/washer switch is located to the left of the steering column.

The washers and wipers operate for a short time whenever the switch is pressed.

REAR WIPER/WASHER



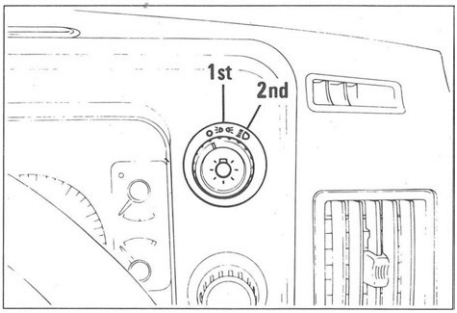
The rear wipe/wash switch is located to the left of the steering column.

Do not operate the wiper when the window is dry. It may scratch the glass. Do not operate the wiper if it is caked with snow of frozen as it may damage the wiper system.

To obtain a spray of water onto the rear window (as well as wiping) depress and hold the lower part of the switch as long as required.

WIPE - WITHOUT WASH. Some models are fitted both INTERMITTENT wipe and NORMAL wipe speed, other models only have NORMAL wipe speed. If INTERMITTENT speed is fitted, pressing the top part of the switch has two 'stops', the first for INTERMITTENT speed, the second for NORMAL speed. If INTERMITTENT is *not* fitted, press the top part of the switch fully, to turn on NORMAL wipe speed.

PARK LIGHTS/HEAD LIGHTS

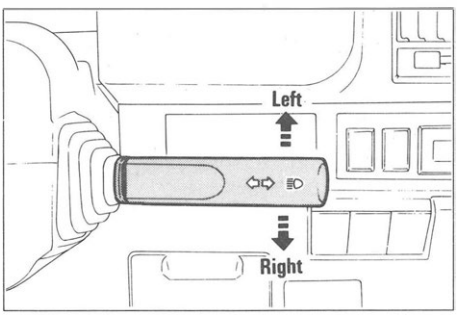


The lights' knob is located to the right of the instruments.

Turn the knob clockwise to the first 'stop' to turn on the park, tail, rear licence and instrument panel lights.

Turning the knob further clockwise (to the second stop) also turns on the headlights.

Leaving the lights on without the engine running will eventually flatten the battery. On some models, a warning buzzer will remind you that you may have forgotten to switch off the lights when leaving the vehicle. That is, the warning buzzer will be heard when the lights are on but the ignition is not ON off and the driver's door is open.



Headlight high/low beam and turn signals are controlled by the lever on the right side of the steering column.

HEADLIGHT HIGH/LOW BEAM

With the headlights on, pull the lever towards you, until you feel a click, then release. The headlights will change between low and high beam, or vice versa. When the high beams are in use, a blue light on the instrument panel will glow.

It is also possible to flash the high beams for signalling purposes (even if the headlights and/or ignition are switched off) by pulling the lever towards you; the lights will remain in high-beam as long as the lever is held. Note that this also changes the headlights between high and low beam when the lever is released.

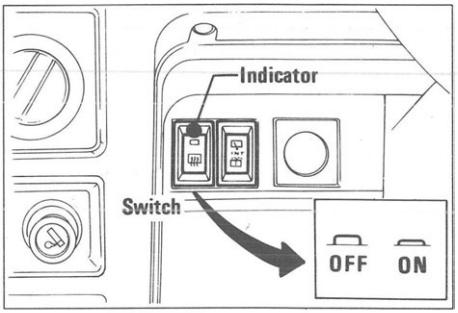
TURN SIGNALS

Push the lever up to signal a left turn and down to signal a right turn. The lever will return to the neutral position when the turn is completed.

In some turns (such as changing lanes) the steering wheel is not turned far enough to cancel the turn signal. So, to indicate a lane change, move the lever part way and hold. The lever will return to the neutral position when released.

A green arrow on the instrument panel will flash when the lights are in operation.

REAR WINDOW DEMISTER



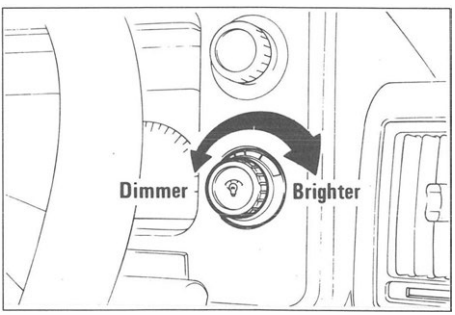
The demister switch is located to the left of the steering column.

Depress the switch to turn on the rear window demister. The indicator light in the switch glows when the demister is in use, i.e. ignition and demister turned ON.

To avoid flattening the battery, turn the demister off by re-pressing the switch when the window becomes clear.

On LS models an automatic timer will turn off the demister after 30 minutes.

INSTRUMENT DIMMER

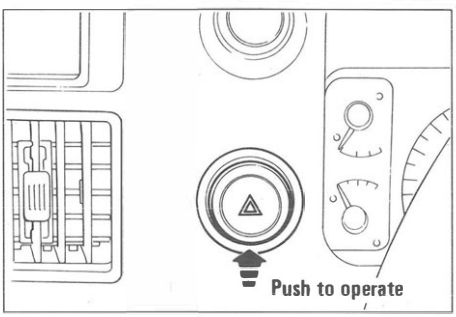


The instrument lights turn on when the park or headlights are turned on.

Brightness of the instruments is controlled by the knob located to the right of the instruments.

Turn the knob clockwise for brighter, anti-clockwise for dimmer.

HAZARD WARNING FLASHER



The red hazard knob is located to the left of the instruments.

Turn on the hazard warning flasher (regardless of the ignition key position) by pushing the knob.

To turn off, push the knob again.

Use the hazard warning flasher to warn other drivers any time your vehicle becomes a traffic hazard, day or night.

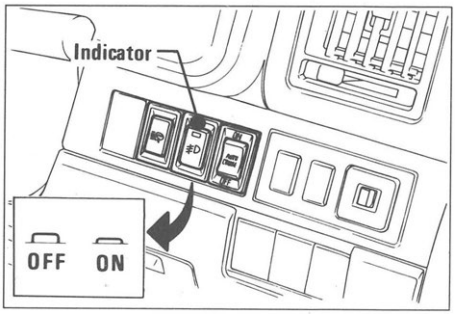
USE OF THE HAZARD WARNING SYSTEM WHILE THE VEHICLE IS MOVING IS PROHIBITED BY LAW IN SOME STATES.

FOG LIGHTS (if fitted)

When fog or heavy mist reduce vision, push this switch to turn the fog lights on.

The fog lights will operate separate to the headlights. The indicator light in the switch glows when the fog lights are in use.

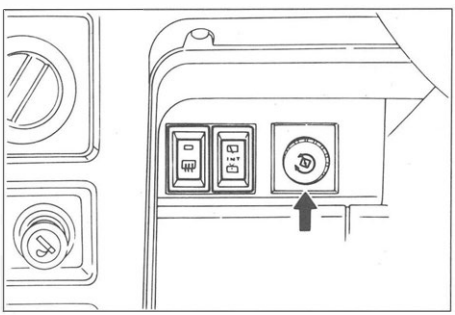
Press the switch again to turn off the fog lights.



DIESEL IDLING CONTROL KNOB

The idling control knob is located to the left of the steering column.

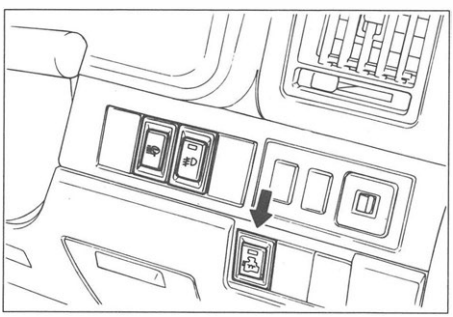
Turning the knob clockwise after cold engine starting will increase idling speed, thereby facilitating quick normalization of the engine. Remember to return the knob to the home position after the engine has warmed up.



DIESEL QUICK WARM UP SWITCH

On initial engine start on cold days, press the switch to quickly warm up the engine. The indicator light in the switch glows when the switch is in use.

Turn off when the engine becomes warm by pressing the switch again.



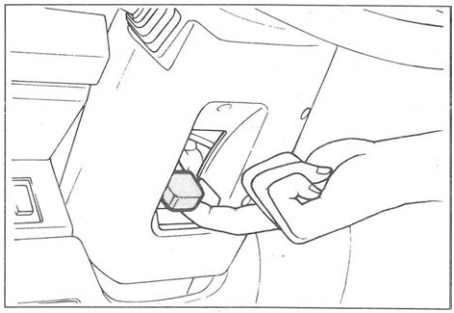
HORN

The horn is activated when the pad in the centre of the steering wheel is pressed.

TILT STEERING (if fitted)

The tilt steering lever is on the bottom of the steering column.

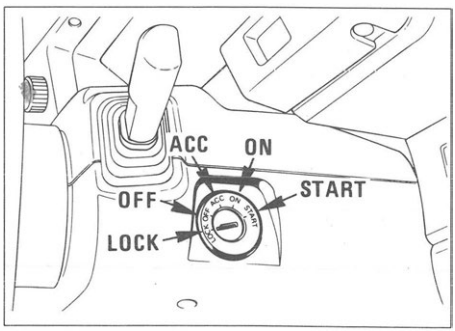
To adjust, pull the lever toward you to unlock the steering column. Move the wheel up or down to the desired position and lock the lever firmly. Then, try moving the wheel up and down to ensure it is securely locked.



For your safety, do not adjust tilt steering while driving.

IGNITION/STARTER SWITCH

LOCK Normal parking position. Accessories and engine are off. This position locks the ignition and steering when the key is removed. The key can only be removed at this position. To release the steering lock, insert the key into the switch and turn it to "OFF" or other positions. If you have trouble turning the key to unlock the steering, turn the steering slightly to the right or left while twisting the key clockwise.



OFF The engine and accessories can be turned off without locking the steering.

ACC (accessories) The engine is off but accessories such as the radio still operate. To avoid flattening the battery, avoid excessive use of accessories when the engine is not running.

ON This is the position at which the engine is ready to start and all electrical systems are active. Do not leave the switch in the "ON" position for a prolonged period, unless the engine is running, otherwise the battery will discharge.

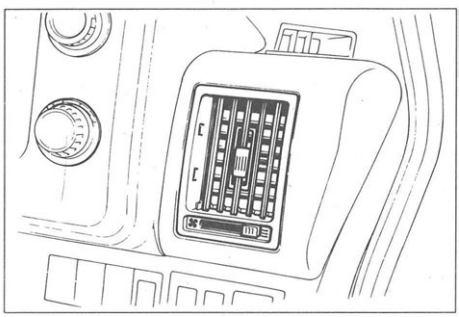
START This is the position for starting the engine. The key should be released from this position as soon as the engine starts.

CAUTION: Do not turn the engine off while the vehicle is in motion as this renders ineffective any power assisted equipment (such as brakes or steering) operated by the engine. Never remove the key while the vehicle is in motion as this will lock the steering of the vehicle.

The vehicle features a flow-through ventilation system for your comfort. Under reasonable conditions, it shouldn't be necessary to open the windows at any time. Fresh air (when selected by the Air Source Lever) is drawn into the vehicle through the grilles in front of the windshield. Do not allow the to become clogged with leaves or snow.

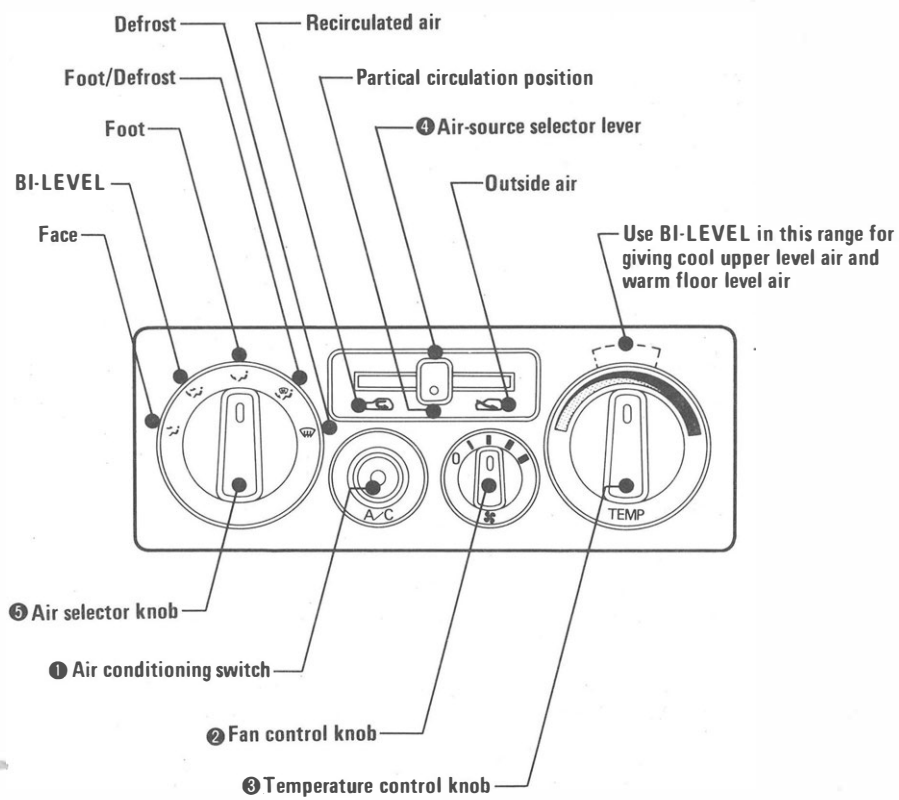
OUTLETS

The five upper face level outlets, located in the dash, have adjustable vanes which may be swivelled up/down and left/right to allow directional control of air flow.



In addition the outer face level outlets may be completely shut off by moving the lever beneath the outlet. shuts off the outlet, opens the outlet. When the outlet is open outside air is delivered from the outlet, regardless of the air source lever position.

Knee level outlets are vertically adjustable. The other outlets are fixed, as these direct air to the windscreen or feet in the best possible way.



❶ AIR CONDITIONING SWITCH (if fitted)

Push the switch to turn on the air conditioning. The indicator light in the switch glows when the air conditioning is operating. Note that the fan must be switched to 1 or greater for the air conditioning to work.

Push the switch again to turn off the air conditioning and achieve better fuel consumption.

❷ FAN KNOB

The fan knob provides speed control of the blower fan: 0 (off), 1, 2, 3, 4.

❸ TEMPERATURE KNOB

The temperature knob regulates the temperature of the air entering the passenger compartment. Turn the knob clockwise for warmer air, anti-clockwise for cooler air.

❹ AIR SOURCE LEVER

Re-circulated or outside air intake can be selected with the Air Source Lever. The re-circulation position should be used (with the windows closed) when outside air is not wanted, as when driving in dusty conditions. However, the re-circulate position should not be used for extended periods of time.

For mixed inside and outside air, move the lever to the Partial Circulation position (centre 'stop' position).

❺ OUTLETS SELECTOR KNOB

The air selector knob allows you to select different outlet combinations for the air entering the cabin of the vehicle.

Air is delivered from the face level outlets.

Provided the temperature knob is moved away from extreme hot or extreme cold, cooler air is delivered from the face outlets and warmer air from the feet outlets. This position is useful in cool weather with bright sunshine.

Air is deliver from the floor outlets.

Air is delivered from the demister and floor outlets.

Air is delivered from the demister outlets.

Hot weather

For a "quick cool down" when first entering the vehicle on a hot day, switch on the air conditioner, select *re-circulate*, move the temperature knob to full cold and turn the fan to a high speed. Also open the windows to allow the hot air to escape. Close the windows after a minute or two as the air conditioning works more effectively with the windows up.

It is recommended that when the interior cools down (approximately 10 to 20 minutes) to select outside air (rather than re-circulate) to achieve and maintain best comfort conditions during extended driving.

The coolest temperature however, is achieved when *re-circulate* is selected. This can be used in slow city traffic or when the vehicle is stationary in very hot weather. Occasionally select *face* or *face and foot* to allow outside air to enter the vehicle.

Dust

The air conditioner not only removes heat from the air, but also removes dust, useful if following another car or when travelling in dusty conditions. Ensure all the windows are closed and preferably have the fan on a high speed.

Cold weather

The air conditioner also removes moisture from the air. By moving the temperature knob away from extreme cold ensures that the air will be reheated after it has been purified.

Therefore, if the side windows or windscreen fog up on a cold day, switch on the air conditioner, turn the fan knob to a high speed, select 'demist' and select a warm setting with the temperature knob. This will circulate warm, dehumidified air throughout the vehicle, defogging the windows.

Fuel consumption

When air conditioning is not needed, remember to turn the air conditioner off, as this will reduce fuel consumption.

Automatic transmission

If your vehicle is stopped for long periods in hot weather with the engine running and the air conditioner operating, select N (neutral) or P (park).

Important

Once every two weeks, with the engine running, switch the air conditioner on for 5 to 10 minutes, even in Winter. This will lubricate the air conditioning system and prevent the seals from drying out.

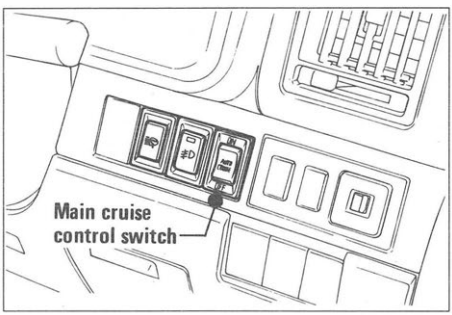
Ozone

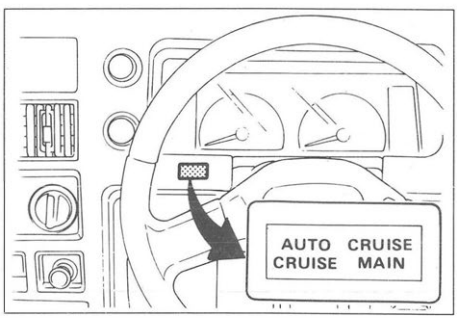
Your air conditioning system uses 'R12' refrigerant which, if leaked into the atmosphere, reduces ozone. When alternative refrigerants become available R12 will be phased out of production.

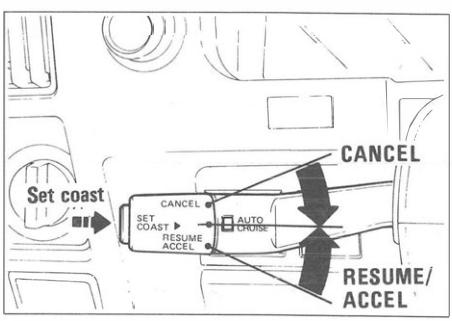
If your air conditioning system requires recharging (when R12 is no longer available) modifications to your vehicle may be necessary.

The cruise control can keep the vehicle at a constant speed, so that the driver does not have to use the accelerator pedal.

This is useful when driving on an open road where frequent deceleration and acceleration are not required. The cruise control speed cannot be set below 40 km/h For your safety, do not use the cruise control when driving in heavy traffic or winding roads.







SETTING A DESIRED SPEED

Push the top part of the main cruise control switch; the CRUISE MAIN light on the instrument panel will come on. This light indicates that the cruise control is ready.

Use the accelerator pedal to gain required speed and push (once) the set/coast button on the end of the cruise control lever. You can then remove your foot from the accelerator pedal. The vehicle speed will then be maintained by the cruise control; the AUTO CRUISE light on the instrument panel will also come on, to indicate that the cruise control is now maintaining vehicle speed.

ACCELERATING

If you wish for a short burst of speed (passing a car) use the accelerator pedal. When you take your foot off the pedal, the vehicle will slow down to the speed set before passing.

RESETTING TO HIGHER SPEED

If you wish to increase the cruise control speed you may either:-

(a) rotate the end of the lever to *resume/accel* for less than 1 second. This is known as 'tap up'. Each time you rotate the switch to this position for less than one second the cruise control speed will increase by 1.6 km/h. Tap ups are limited to 10 consecutive times.

(b) rotate the end of the lever to *resume/accel* and hold for more than one second. The cruise control speed will increase until you release the lever.

(c) use the accelerator pedal to increase vehicle speed, push in the *set/coast* button on the very end of the lever (for less than one second) then release.

RESETTING TO A LOWER SPEED

If you wish to decrease the cruise control speed you may either:-

(a) depress the *set/coast* button for less than one second. This is known as 'tap down'. Each time you depress this button the cruise control speed will decrease by 1.6 km/h. If you tap down to lower than 40 km/h the cruise control will be disconnected.

(b) depress and hold the *set/coast* button. Wait until the vehicle slows to the desire speed, then release the button. If you coast down to lower than 40 km/h the cruise control will be disconnected.

STOPPING CRUISE CONTROL

If, while the vehicle speed is maintained by the cruise control, you:

(a) depress the brake pedal

(b) depress the clutch pedal (manual transmission)

(c) shift the transmission lever to ***N*** (automatic transmission)

(d) turn the end of the cruise control lever to the CANCEL position

(f) use the *set/coast* button to bring cruise control speed below 19 km/h

(g) when cruising speed is lower than preset speed by 19km/h

the cruise control will stop controlling the vehicle speed. However, the memory will store the last set speed. To resume this speed, use the accelerator pedal to bring vehicle speed to at least 40 km/h, then rotate the end of the cruise control lever to *resume/accel* for less than one second. Note: if the switch is held for more than one second the memory will be erased and the cruise control will be in the *accel* mode (the speed will increase until you release the switch).

To completely switch off the cruise control you may either:-

(a) depress the lower part of the main switch to the OFF position

(b) depress the *set/coast* button and turn the end of the lever to the *resume/accel* position at the same time

(c) turn the ignition key to OFF

(i) or if the cruise control system senses trouble in the system

Note that when going up steep hills it may be difficult for the cruise control to maintain a constant speed, in which case if may cancel itself.

WARNING

DO NOT USE THE CRUISE CONTROL WHEN ROAD OR DRIVING CONDITIONS COULD REQUIRE VARYING SPEEDS. A CONSTANT SPEED MAY NOT BE PRACTICAL IN HEAVY OR VARYING TRAFFIC, OR ON WINDING, SLIPPERY OR ROUGH ROADS.

KEEP THE MAIN SWITCH IN THE OFF POSITION UNLESS USING THE CRUISE CONTROL.

WITH MANUAL TRANSMISSIONS, *NEVER* ATTEMPT TO MOVE THE GEAR LEVER WITHOUT USING THE CLUTCH PEDAL WHILE THE CRUISE CONTROL IS MAINTAING VEHICLE SPEED. ENGINE OVER-REVVING AND DAMAGE MAY RESULT.

REMEMBER THAT TAKING YOUR FOOT OFF THE ACCELERATOR WHEN THE CRUISE CONTROL IS ENGAGED WILL NOT REDUCE VEHICLE SPEED.

WHEN GOING UP OR DOWN HILLS (PARTICULARLY WHEN TOWING) IT IS POSSIBLE FOR THE VEHICLE TO GAIN OR LOSE SPEED, EVEN THOUGH THE CRUISE CONTROL IS ENGAGED. IF THIS HAPPENS WHILE GOING UP HILL, MERELY DEPRESS THE ACCELERATOR PEDAL TO MAINTAIN THE SPEED DESIRED. IF GOING DOWN A HILL, STEEP ENOUGH TO CAUSE THE VEHICLE TO GAIN SPEED, DEPRESS THE BRAKE PEDAL, WHICH WILL BOTH DISENGAGE THE CRUISE CONTROL AND SLOW THE VEHICLE DOWN.

IF A MALFUNCTION HAS DEVELOPED IN THE CRUISE CONTROL SYSTEM, HAVE THE SYSTEM CHECKED AND CORRECTED AS SOON AS POSSIBLE BY A HOLDEN DEALER.

CIGARETTE LIGHTER

Located beneath the heater, the cigarette lighter is operational with the key in either the *ON* or *ACC* positions. To operate, simply press in the lighter knob. When the element is hot the lighter will automatically pop out, ready for use.

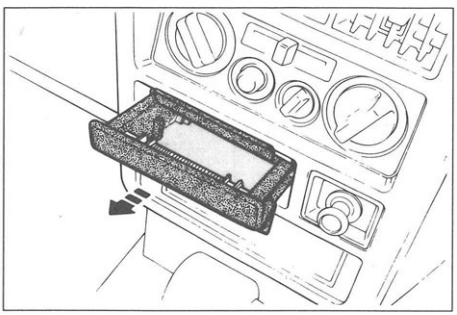
To avoid damage to the lighter, don't hold the lighter pushed in by hand.

ASH TRAY

The front ash tray is located to the left of the cigarette lighter.

Pull out to use. To empty, depress the top flap and pull the ash tray completely out.

Refer page 2-17 for rear ash trays.



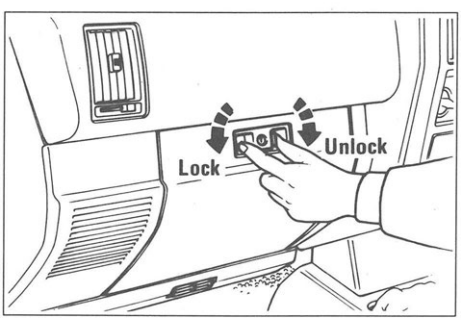
GLOVEBOX

The glovebox is provided on the passenger side of the instrument panel.

To open, squeeze in the lock button on the right hand side of the glovebox lock. Push the lid shut to close.

To lock, turn the key clockwise, to unlock, turn the key anti-clockwise to the vertical position. To unlock and open at the same time, turn the key anti-clockwise, past the vertical position.

The key must be vertical in the lock in order to withdraw the key and leave the glovebox unlocked.

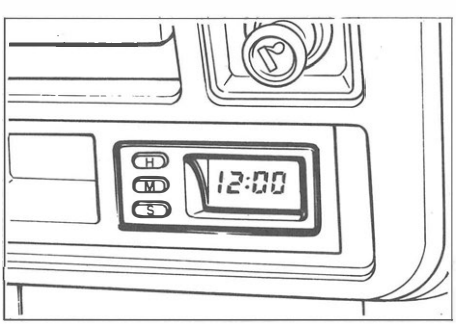


RADIO / CASSETTE

Refer to the operating instruction supplement in your glovebox for all information relating to the operation of your radio/cassette.

CLOCK (if fitted)

Located beneath the cigarette lighter, time is displayed when the key is turned to *ON* or *ACCESSORIES*.



H Hour display is advanced rapidly while this button is held de-pressed *or* display increases by one hour each time the button is pressed.

M Minute display is advanced rapidly while this button is held de-pressed *or* display increases by one minute each time the button is pressed.

S When the S (SET) button is pressed the time is rounded off to the closest hour.

The switches for the electric mirrors are located to the right of the steering column.

Note that whereas mirror angle and mirror foldback are operational when the ignition is turned to *ON* or *ACCESSORIES*, mirror heating is only operational when the ignition is turned to ON.

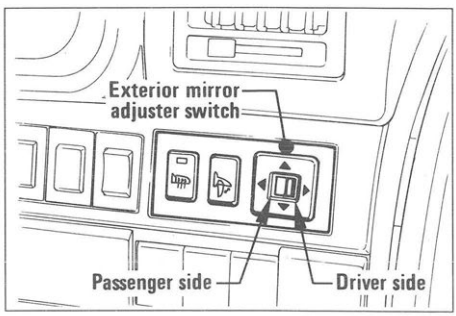
Moving the mirrors forcibly by hand will damage them.

MIRROR ANGLE

The middle 'toggle' switch has two positions, left mirror or right mirror.

Push the edges of the square to move the mirror up, down, left or right.

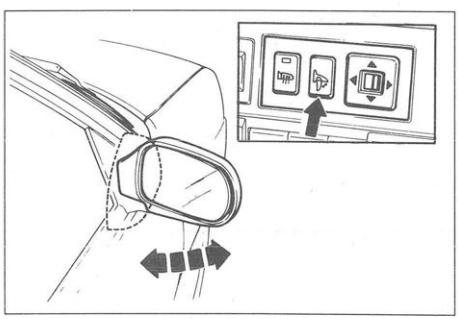
It is not advisable to adjust the mirrors while driving.



MIRROR FOLDBACK

To avoid mirror damage when driving in rough terrain with limited clearance, the mirror assembly can be folded flat against the side of the vehicle.

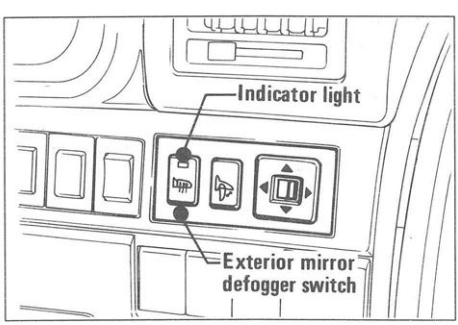
Press the switch once to fold the mirrors back, press again to return them to their original position, as soon as conditions permit.



MIRROR HEATING

Useful for demisting the mirrors and for melting ice or snow, depress the switch to start heating the mirrors. The indicator light in the switch glows when the mirror heater is in use.

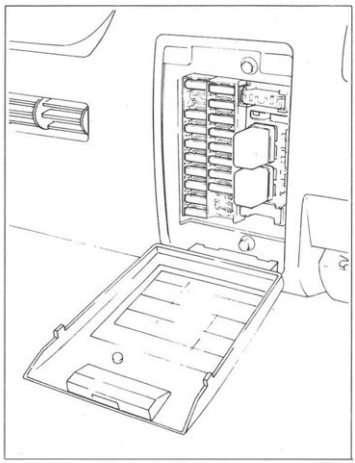
To avoid flattening the battery, turn the mirror heater off by re-pressing the switch when the mirrors are clear.



Refer page 2-14 for operation of non-electric mirrors.

FUSE PANEL COVER

The fuse panel cover can be pulled down by hand. Refer page 6-14 when replacing fuses.



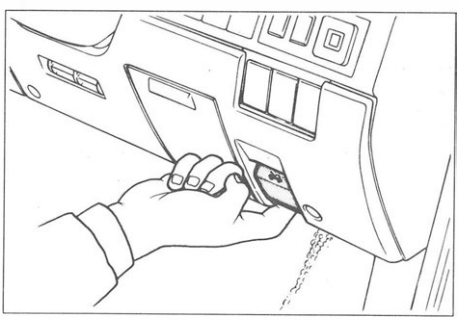
BONNET RELEASE

To open the bonnet, pull the lever inside the vehicle (beneath the dash) towards you.

This allows the bonnet to release but is prevented from opening by the safety catch. To open completely, reach in under the centre of the bonnet and squeeze the safety catch upwards. Fully open the bonnet and insert the support rod in the slot provided.

For closing, return the support rod to its resting position and lower bonnet gradually to be finally dropped under its own weight.

Always check to be sure that the bonnet is closed by attempting to lift the bonnet.



Chapter 2

Know your Vehicle

Page

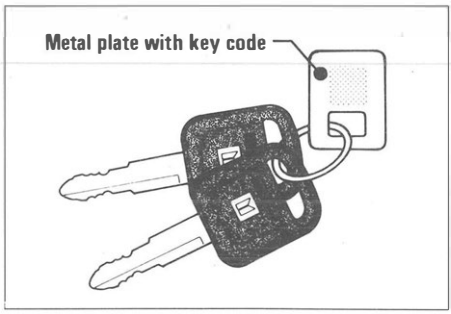
2-2 Keys
2-2 Fuel filler release
2-2 Park brake lever
2-3 Door locks
2-4 Tailgate locks
2-5 Seat adjustment
2-8 Folding rear seat
2-9 Child seat
2-10 Seat belts
2-13 Console
2-13 Storage bin
2-13 Sunvisor
2-14 Mirrors, non-electric (electric see page 1-21)
2-14 Windows, non-electric
2-15 Windows, electric
2-16 Interior lights
2-17 Antenna
2-17 Foot rest
2-17 Assist grips
2-17 Ash tray, rear
2-18 Card holder

KEYS

Two keys are provided with the vehicle. The key code number is stamped on the metal plate attached to the key.

For vehicle security, remove the metal plate and keep the number in a safe place - NOT IN THE VEHICLE.

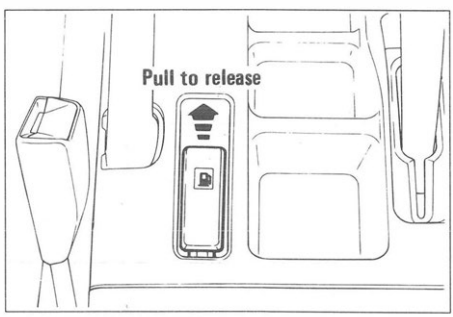
In the event of the original keys being lost a duplicate can be made by your Holden Dealer, using your key code number.



FUEL FILLER RELEASE

To release the fuel filler flap, pull up the lever located between the front seats.

Refer to information on the inside of the rear cover of this Handbook when refuelling.



PARK BRAKE LEVER

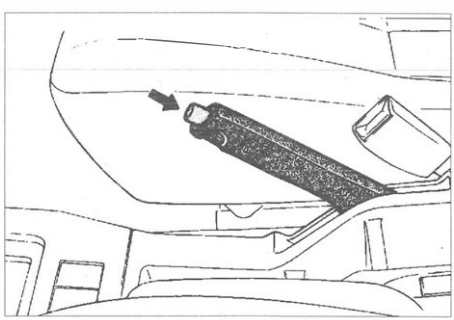
The park brake lever is between the front seats.

To apply, pull the lever up, without pressing the release button.

When the ignition switch it turned to ON, a symbol on the instrument panel will indicate that the park brake is not fully released.

To release, pull the lever slightly up, squeeze in the release button on the end of the lever and whilst depressed, lower the lever all the way down.

Never drive the vehicle with the park brake applied.



MANUAL (side doors and rear door)

When leaving the vehicle:

- Door can be locked or unlocked with the ignition key. To open doors, unlock with key then pull out the door handle.

- To lock doors without using the key, push down the lock button (inside the vehicle) then close the door while holding out the door handle.

When remaining inside the vehicle:

- Push the lock button down to lock the door, pull up to unlock.

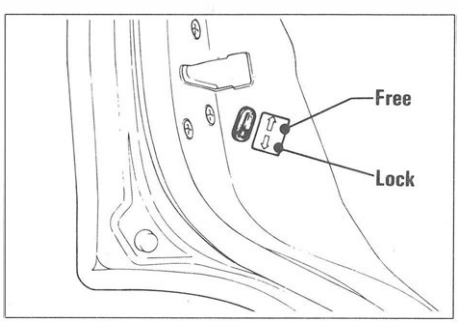
ELECTRIC (if fitted)

All doors (all side and tailgate) will unlock and lock simultaneously when the driver's door is locked or unlocked, either with the inside lock button or the key from outside.

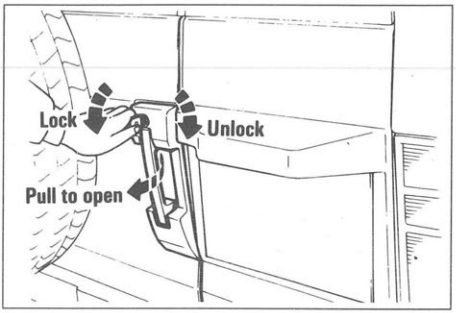
In addition, using the key to unlock or lock the front passenger's door will also simultaneously lock and unlock all other doors. Using the front passenger's lock button will not affect the other doors though.

CHILD PROOF

This added safety is built into the two rear passenger doors. To operate, push the lever **down** as far as it will go and close the door. The door cannot now be opened from inside, regardless of the lock button position. To disengage, open the door from outside and push the lever up as far and is will go.

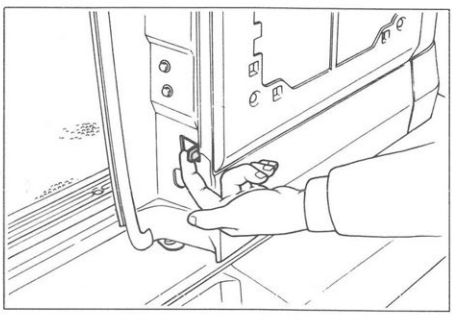


CAUTION: For safety, you should check that the lock is operating correctly, after setting, by attempting to open the door from the inside.

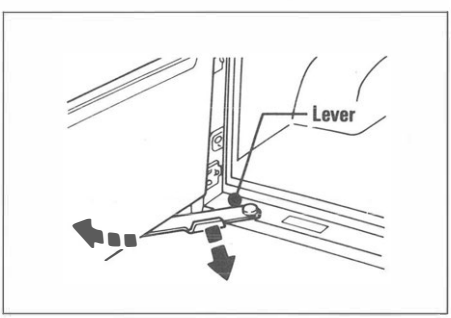


The tailgate may be locked or unlocked in the same way as the side doors, either with the ignition key or the lock button.

If electric locking is fitted, the tailgate will lock and unlock in conjunction with the side doors, refer page 2-3.

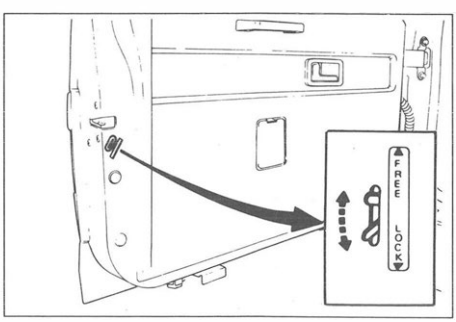


When opening the left side of the tailgate, pull out until the lever locks in position.

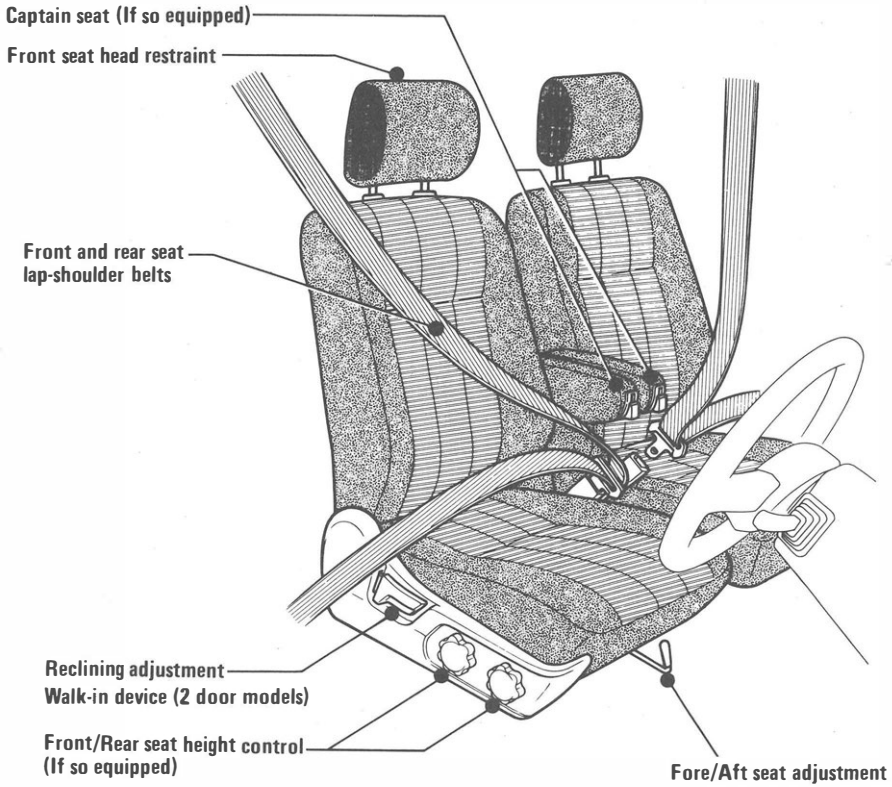


To close, push the tailgate out slightly and pull the lever towards you.

The child proof safety lock is built into the tailgate. To operate, push the lever **down** as far as it will go and close the tailgate. The tailgate cannot now be opened from inside, regardless of the lock button position. To disengage, open the tailgate from outside and push the lever up as far and is will go.



CAUTION: For safety, you should check that the lock is operating correctly, after setting, by attempting to open the tailgate from the inside.


Captain seat (If so equipped)
Front seat head restraint
Front and rear seat lap-shoulder belts
Reclining adjustment
Walk-in device (2 door models)
Front/Rear seat height control (If so equipped)
Fore/Aft seat adjustment

FORE/AFT

Turn the lever (at the front of the seat) to one side and move the seat forward or backwards as required. After adjusting the seat position, try to move the seat forward and backward to be sure the seat adjusters have been latched.

Do not adjust the driver's seat while the vehicle is moving.

RECLINING

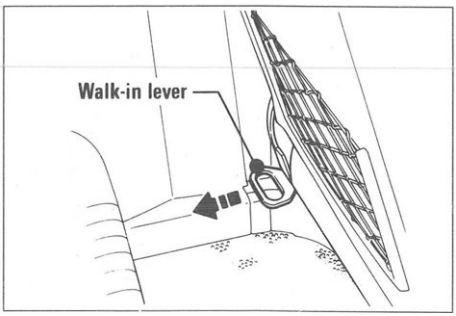
The angle of the back of the seat can be adjusted by raising the lever on the door side of the seat.

To avoid reducing the effectiveness of seat belts, seats should only be *semi*-reclined when the vehicle is moving. The fully reclined position should only be used when the vehicle is stationary.

PASSENGER SEAT (2 door models only)

On the passenger side, the back of the seat slides all the way forward as the reclining lever is pulled up, making it easier for rear seat occupants to enter.

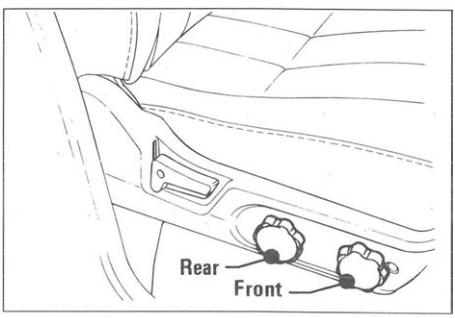
To exit the rear seat, pull the 'walk-in' lever, located on the back of the front passenger's seat



SEAT HEIGHT CONTROL (if fitted)

The two knobs on the door side of the seat control the height.

The front knob moves the front of the seat cushion up or down, the rear knob moves the rear of the seat cushion up or down.



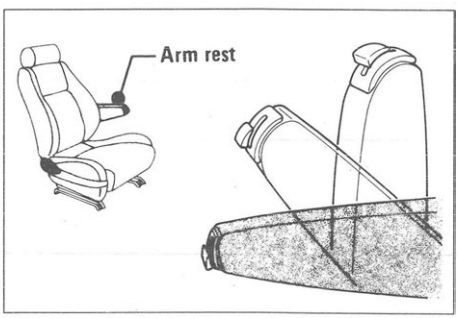
'CAPTAIN SEAT' ARMREST (if fitted)

Armrests for the inner sides of the front seats may be used when horizontal or folded upwards vertically, when not required.

To lower the armrest, first move the lock lever at the end of the armrest up. Release the lock lever when the armrest is in the desired position.

The arm rest can be raised without using the lock lever.

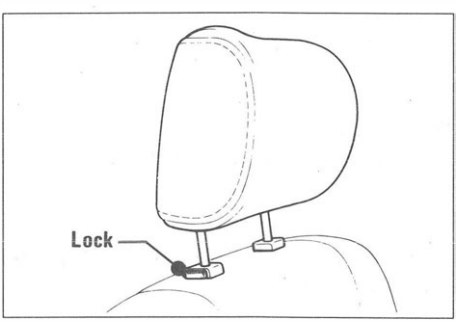
Raise the armrest before opening the centre console.



HEAD RESTRAINT

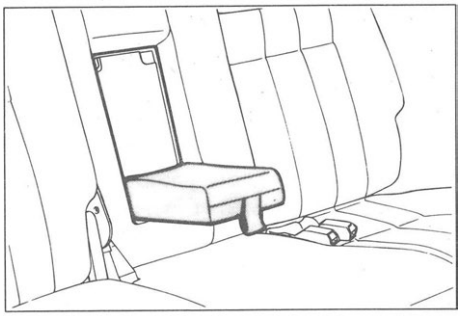
This safety feature is not intended as a head rest. It is solely for the reduction of possible injury that may result from a whip-lash neck movement following a vehicle collision. Do not drive the vehicle with the head restraint removed.

Pull the head restraint up to raise the height. To lower the head restraint, first squeeze in the lock button.



REAR SEAT ARMREST

On some models, a rear seat armrest is provided. Reach in and pull down the armrest if required.



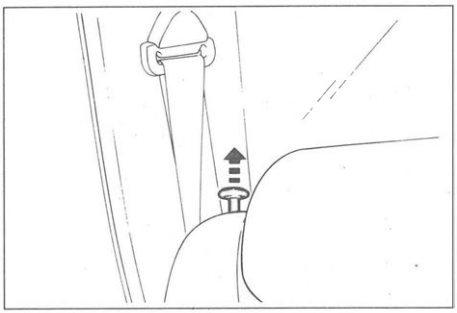
REAR SEAT HEAD RESTRAINTS

Some models are fitted with adjustable *rear* head restraints. Pull up or push down to adjust the height, as required.

RECLINING REAR SEAT (if fitted)

When the seat back is in the upright position, pull up the release knob(s) and recline the seat backwards. Releasing the knob locks the seat in position.

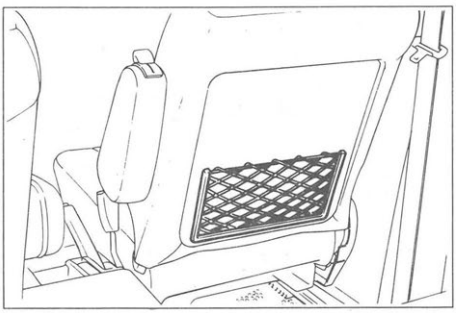
To avoid reducing the effectiveness of seat belts, seats should only be *semi*-reclined when the vehicle is moving. The fully reclined position should only be used when the vehicle is stationary.



SEATBACK STORAGE POCKET

The front seatback storage pocket is provided to store small items.

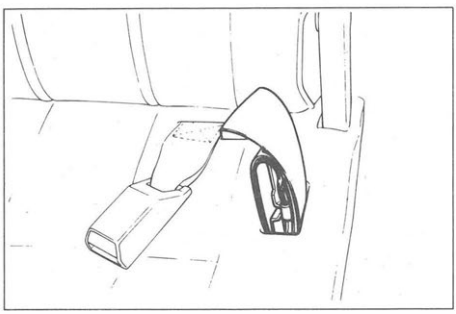
Whenever possible loose items should be secured, as they can become flying projectiles in accidents.



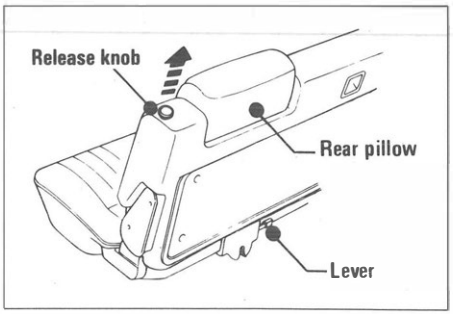
BUCKLE STOWAGE (if fitted)

Some models are provided with stowage pockets in the sear seat to tuck away the rear seat belts.

Roll the seat belt webbing around the buckle and tuck into the hole.



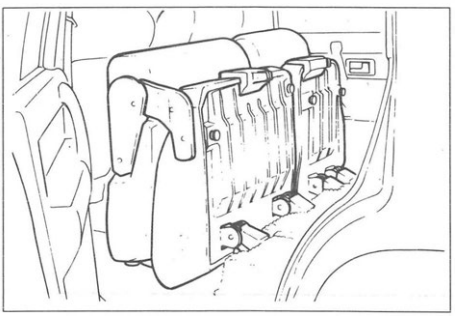
Folding seat back (if fitted)



1. Ensure rear pillow is in the lowest position.
2. Ensure seat belts are out of the way.
3. Pull up the release knob on the top of the seat back.
4. Fold the back of the seat forwards. Note that some models have a *split* rear seat, which means that either one side or both sides of the seat back may be folded forwards. Remember to first tuck away the centre arm rest.

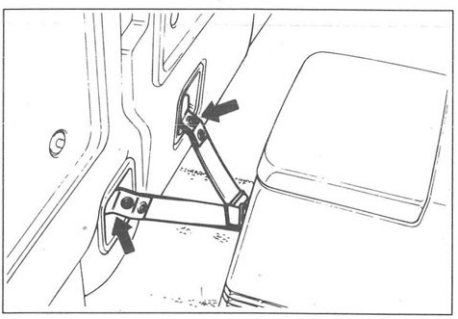
The release knob must be pulled up when returning the seat to the upright position.

Converting rear seat



In addition to folding the back of the seats forward, with some models, the whole of the rear seat assembly may be folded forward. In addition, some models are fitted with split rear seats which allows you the option of converting either one or both sides of the seat.

1. Fold the back of the seat forward as described above.
2. Push down and unlatch the lever located at the back of the rear seat cushion. At the same time lift the rear seat and push forward, until in the vertical position.



3. Remove the cover at the rear of the console to reveal the anchor strap(s) that are attached to the rear of the console. Split seats have two bands (the shorter band is for the right seat, the longer band for the left), non-split seats have one band. Attach the free end of the band(s) to the clasp on the back of the seat back. The bands are adjustable in length.

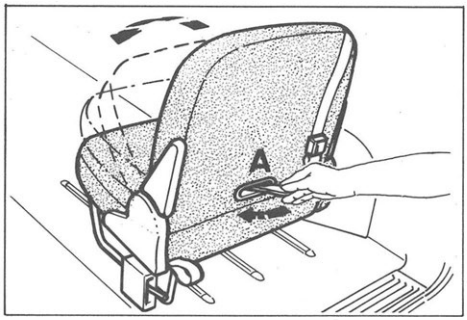
Do not permit anyone to ride in the rear of the vehicle while the seat is folded down. All occupants should be properly restrained by a seat belt while the vehicle is moving.

After restoring seat to upright position, check to ensure seat is securely locked into place.

Forwards facing, the child seat is suitable for 2 children up to 26 kg per child (approx 8 years old). Each is supplied with a lap/sash seat belt which is attached to the seat frame.

When not required for use, the child seat can be folded forward on hinges for more cargo space. Alternatively, it can be removed altogether.

FOLD FORWARD

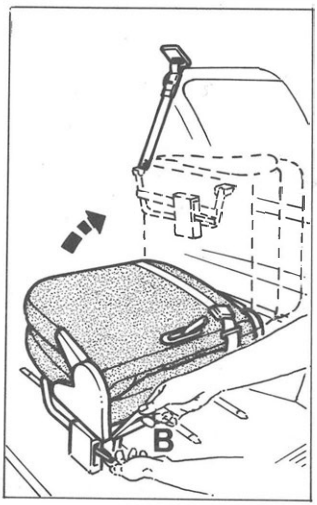


Either one or both seats may be folded forward.

Pull lever **A** and fold down the back of the seat.

Move lever **B** up and USE THE STRAP AT THE BASE OF THE SEAT to lift the seat assembly sideways (up to the side window). For the safety of your hands, it is important that the strap be used to lift the seat, rather than your hands.

Attach the strap on the seat to the catch anchored to the roof of the vehicle, above the window.



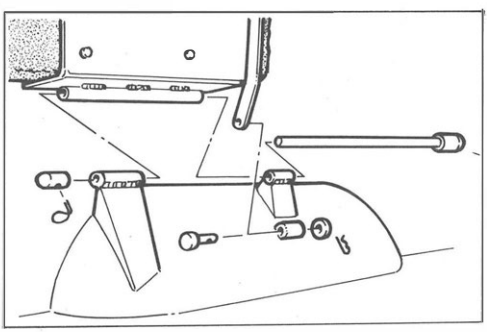
To unfold the seat, first undo the catch anchored to the roof of the vehicle. Again, USE THE STRAP to lower the seat. Press the seat firmly down until it locks to the floor. "Jiggle" the seat to ensure that the lock has caught.

Pull lever **A** and return the back of the seat to the upright position.

If the lever **A** is hard to move, apply pressure down on the back of the seat while moving lever **A.**

Again, when the back of the seat is in the upright position 'jiggle' the back to ensure that the lever has caught.

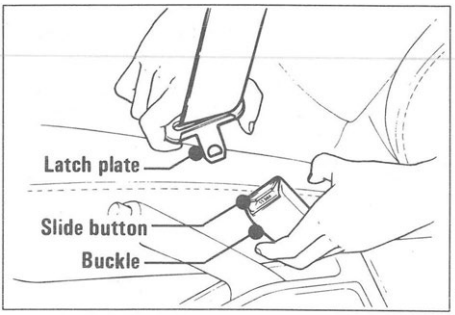
REMOVING



Fold seat up to side window as previously described.

Remove the split pins and then the rods, as shown.

RETRACTOR BELTS



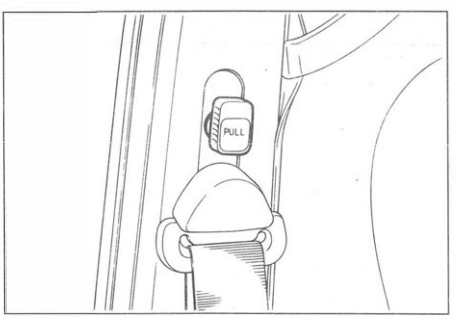
To put on a retractor seat belt, pull the latch plate across your body and clip it into the buckle. When the latch plate has locked safely into place you will hear a "click". After fastening, settle the belt by running your hand under the belt starting at the hip, go across to the buckle, then up under the sash. Any extra belt length will retract automatically.

The lap section should be worn as low as possible on your hips, not on your waist. Make sure the sash and lap sections of the seat belt are free from twists and are fitting firmly.

The emergency-locking retractor belt allows you to move freely while the vehicle is travelling normally. The belt will lock immediately on fast braking, impact with a solid object or any quick movement by the wearer.

To release the belt, press the slide button on the buckle and allow the belt to retract. Check that it fully retracts without twisting or turning.

FRONT SEAT BELT - shoulder height adjust (if fitted)



The seat belt is anchored to the vehicle near your shoulder. The position of anchorage can be moved to different heights.

Pull the knob out and move the seat belt anchor up or down. Release the knob at required position and ensure that the anchor has clicked into position.

Short people should select a low anchor position, tall people a higher one. This will ensure, for both safety and comfort, that the webbing of the seat belt fits *on* the shoulder.

For your safety, the driver's side shoulder anchor should not be adjusted while the vehicle is in motion.

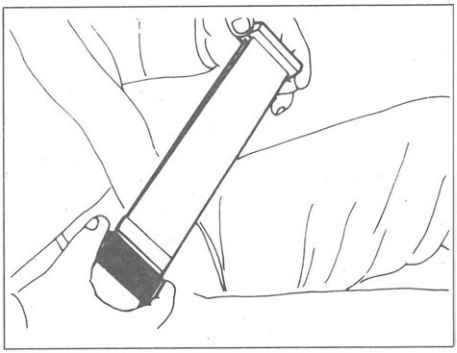
CENTRE REAR SEAT BELT (if fitted)

The seat belt for the centre of the rear seat is non-retracting lap belt.

To fasten the seat belt, bring the latch plate across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". Make sure the belt is fitting firmly across the lower hip area and not across your waist.

To release, press the slide button in the centre of the buckle.

To shorten or lengthen the seat belt: Tilt the latch plate at right angles to the seat belt webbing and pull the webbing through the belt adjuster as required.



Australian Design Rules: WARNINGS

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oil and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after is has been worn in a severe impact, even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modification or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with, or stop, the belt from fully retracting.

INFANT AND CHILD RESTRAINTS

CHILDREN SHOULD BE RESTRAINED AT ALL TIMES WHEN RIDING IN A MOTOR VEHICLE.

In some States it is Law that children must be belted in, whenever they are travelling in a vehicle in which seat belts are installed. CHILDREN ABLE TO SIT UP should be restrained with regular seat belts or an approved child restraint.

Where children are restrained with the regular seat belt and it is desired to raise their seating position this is to be done only by means of a support which is retained by the belt. NEVER USE A LOOSE CUSHION AS THIS COULD ALLOW SERIOUS INJURY IN THE CASE OF A VEHICLE COLLISION.

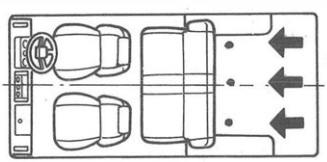
CHILD RESTRAINT ANCHORAGES

Your vehicle is fitted with anchorage points for child restraints. Anchorage points are located in the floor behind rear seats. Install child restraints using a 10 mm spacer between the floor and the anchor fitting with a 5/16" -18 U.N.C. (course thread) x 30mm long bolt.

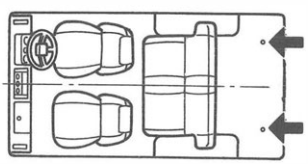
WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

Only approved child restraint harnesses should be used on anchorage points. See your Holden Dealer for advice about the various types of approved child restraints available.

INFANTS UNABLE TO SIT BY THEMSELVES should be carried in an approved child seat restraint (capsule). Check with your local Infant Welfare Centre for availability.



4 door model

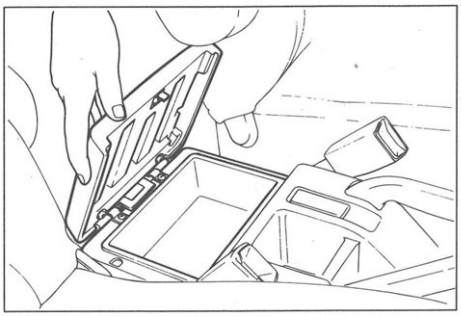


2 door model

CONSOLE

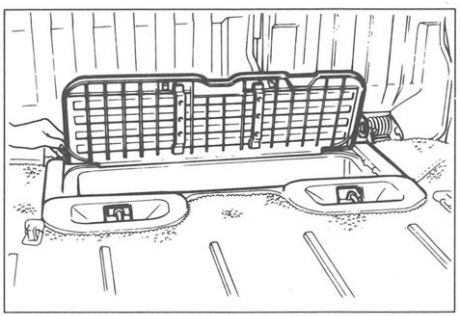
The centre console is located between the two front seats.

Push the lid to release the magnetized catch.



STORAGE BIN (if fitted)

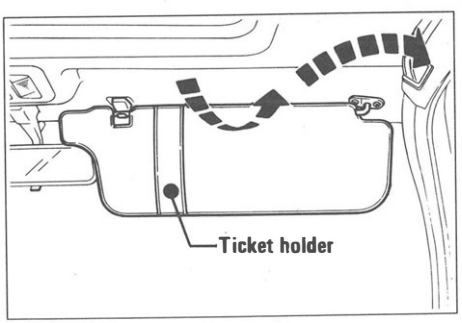
The luggage storage bin is in the floor, under the rear seat, and can be accessed when the rear seat is folded up.



SUN VISOR

A ticket/document holder is fitted to the driver's side sun visor.

The sun visor can be pivoted to the side when unhooked.

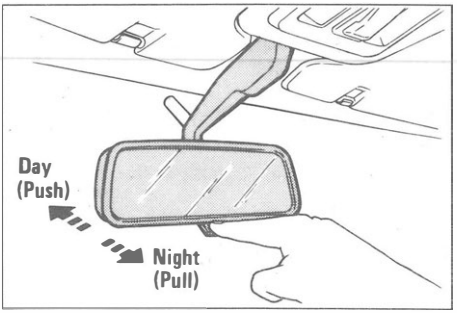


INSIDE REARVIEW MIRROR

Move the mirror right/left or up/down to gain the required angle.

The anti-glare lever on the lower edge of the mirror enables a reflector to be used during night driving. This reduces glare at night from following vehicles.

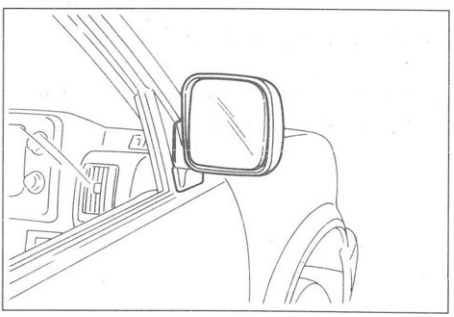
During normal daylight operation, the lever should be set forward. To reduce glare at night, move the lever towards you.



MANUAL OUTSIDE REARVIEW MIRROR(S)

Adjust the outside rearview mirror so you can just see the side of your vehicle in the side of the mirror. This helps you determine your relation to objects seen in the mirror. When selecting the most suitable angle ensure that the driver's head is in the normal position for driving, then adjust the mirror angle to suit.

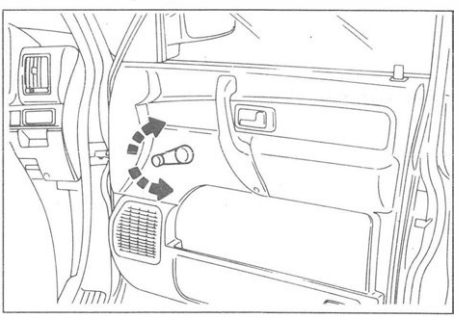
Refer page 1-21 for electric mirrors.



WINDOW HANDLE (manual windows)

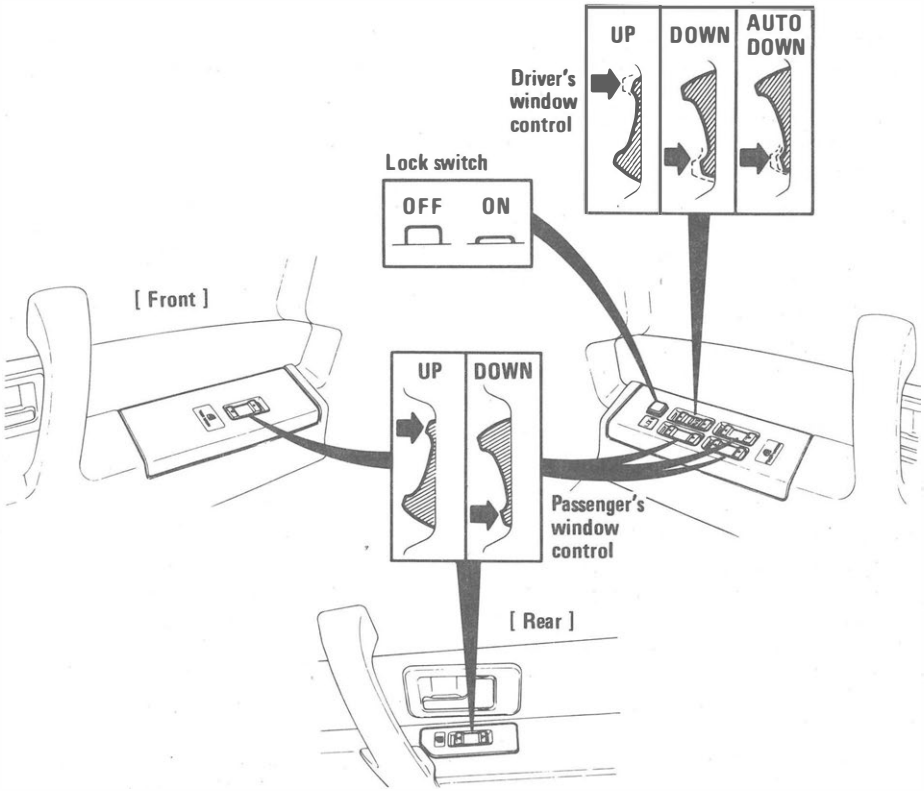
Turn the regulator handle to raise or lower the door windows.

Refer next page for electric windows.



1/4 window (2 door model)

Pull catch forward and push window out until it locks. When closing, pull catch forward to release and then pull back into closed 'lock'position.



The electric windows are operational when the ignition is turned to *ON.* If the switches do not work, check the circuit breaker, refer page 4-12.

Control switches

The main control switches are on the driver's door armrest, which contains a 'lock out' button plus one switch for each window.

Press the front section of each switch to close a window, or the rear of the switch to open the window.

In addition, the driver's window is fitted with 'auto down.' This means that if only slight pressure is used on the button the window will open until the button is released. If firm pressure is used, however, the window will completely open even after the finger is removed from the button.

The lock button, when de-pressed, will stop movement of all the passenger windows, either from the individual door switches or from the main control switches. Note that the lock button does not affect movement of the driver's window. Repress the lock button to restore passenger window movement.

Passenger door switches

Apart from the complete set of switches on the driver's armrest, individual switches are located on each passenger door.

Press the front section of the switch to close a window, or the rear of the switch to open the window.

To prevent flattening the battery, it is advisable not to leave lights switched ON For convenience, it is advisable to keep the switch in the DOOR position, where applicable.

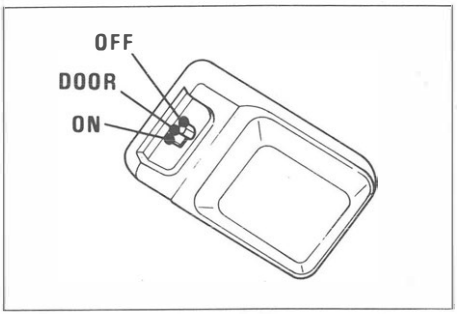
DOME LIGHT (standard type)

Located in the centre of the roof, the light switch has three positions.

ON Light turns on and remains on.

DOOR Light turns on when a door is opened and turns off when the door is closed.

OFF Light stays off.

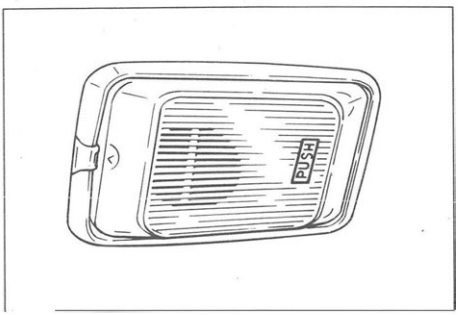


DOME LIGHT (if fitted with time delay)

Located in the centre of the roof, the dome light comes on when a door is opened.

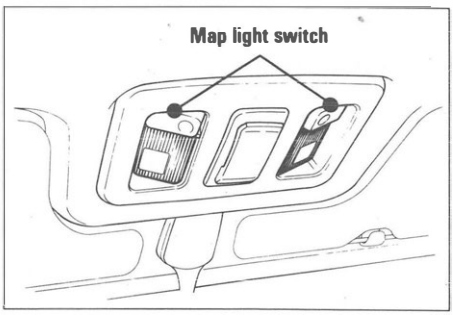
It begins to dim approx. 3 seconds after closing the door.

The light will also come on when the lens of the dome light is pushed, and will go out when the lens is pushed again.



MAP LIGHTS (if fitted)

Fitted near the interior rear view mirror. 'rock' the switch to the inside to turn the light on, to the outside to turn off.



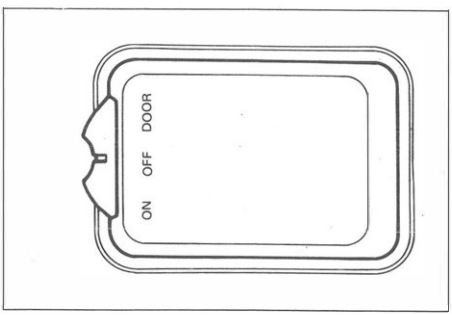
TAILGATE LIGHT

Located high on the inside of the tailgate, the light switch has three positions:

ON Light turns on and remains on.

DOOR Light turns on when the tailgate is opened and turns off when the tailgate is closed.

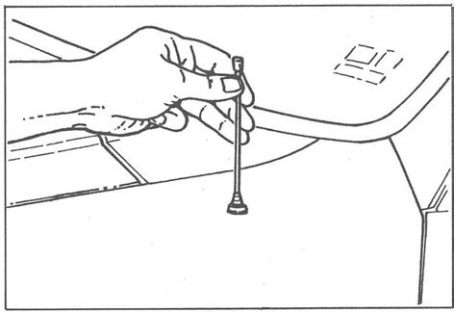
OFF Light stays off.



ANTENNA (manual)

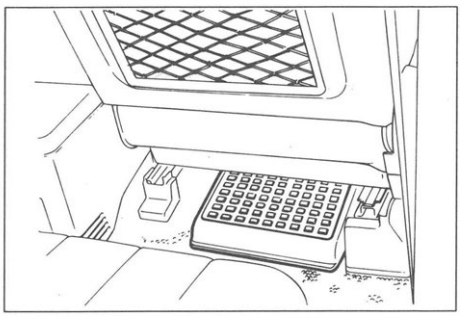
Pull out the antenna to gain sensitivity.

Refer to the operating instruction supplement in the glovebox for all information about your radio/cassette and electric antenna (if fitted)



FOOT REST (if fitted)

On some models foot rests are provided under the front seats, for rear passenger use.

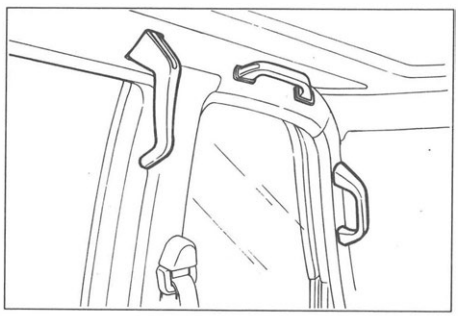


ASSIST GRIPS

Assist grips are provided above passenger windows on all models and *in front* of windows on some models.

The assist grip above the rear window includes a coat hanger.

An additional assist grip is provided on the centre console for the front passenger's use.



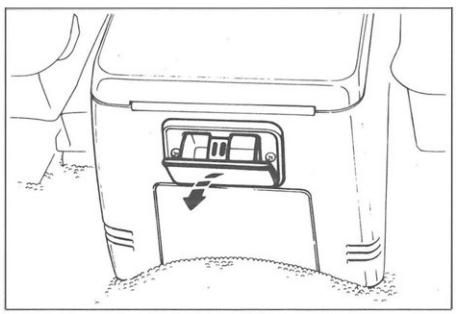
REAR ASH TRAYS

The rear ash trays is located at the rear of the console, between the back of the front seats.

Tilt to use.

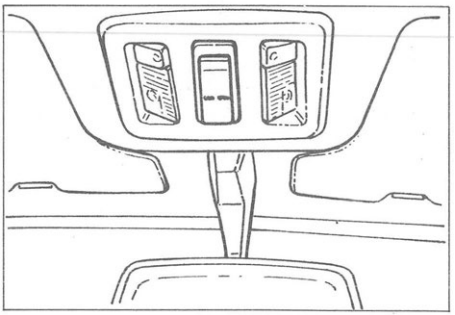
To empty, depress the top flap and pull the ash tray completely out.

Refer page 1-20 for front ash tray.



CARD HOLDER CLIP (if fitted)

For your convenience, a card holder clip is provided in the roof, between the front reading lights.



Chapter 3

Starting, Driving & Towing

Page

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3-9 4 Wheel Drive (if fitted)

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3-14 Reducing Fuel Consumption

3-15 Driving Precautions

1. Apply the park brake firmly and release only after you have started the engine and ready to drive off.
2. MANUAL: Depress the clutch pedal fully and move the gear lever to Neutral. The clutch pedal can now be released.

   AUTOMATIC (if fitted): Move the shift lever to P(park) or N(neutral) position. The engine will not start if it is in any other position. As a safety precaution, you must have your foot on the brake pedal in order to shift the transmission lever out of the Park position.
3. Start the engine as outlined below.

PETROL ENGINE STARTING

For cold or hot starting the procedure is the same. Do not touch the accelerator pedal. Simply turn the key to the START position and release when the engine starts.

If the engine does not start within 3 seconds, push the accelerator pedal down one quarter of the way and continue holding the ignition key at the START position. If the engine does not start within 15 seconds, turn the ignition key to OFF and wait for 15 seconds to let the starter cool down. Then, depress the accelerator pedal down to the floor and hold it there while holding the key in the START position. If the engine does not start within 10 seconds, release the key and wait another 15 seconds before repeating the entire procedure once again.

If the engine still fails to start, contact your Holden Dealer.

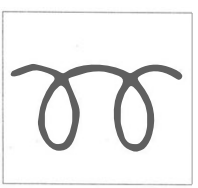
CAUTION: When trying to start the engine, do not hold the key in the START position for extended time, for if unburnt fuel were to reach the catalytic converter and ignite, the converter could overheat or be destroyed by backfire.

NOTE: You should not subject the engine to high load conditions such as full throttle acceleration or high speeds until is has completely warmed up.

DIESEL ENGINE STARTING

Glow plug indicator light

Your diesel engine has a special starting system. Small heating elements, called "glow plugs" warm part of the engine for improved starting.



Turning the starter key to the "ON" position starts the system and turns on the indicator light. This indicator light is located on the instrument panel.

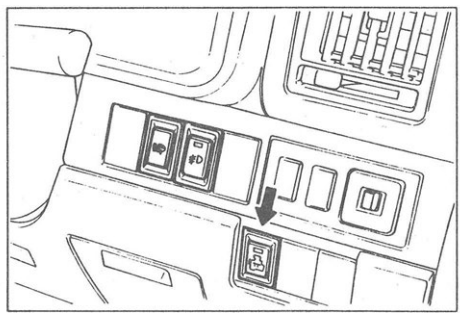
When the glow plugs have heated the engine enough for it to start, the indicator light will go out - the engine is now ready to be started.

Note that waiting time depends on the engine temperature. The light may stay on for half a second if the engine is warm, or for about 5 seconds or longer if cold.

If the light fails to come on, see your Holden Dealer.

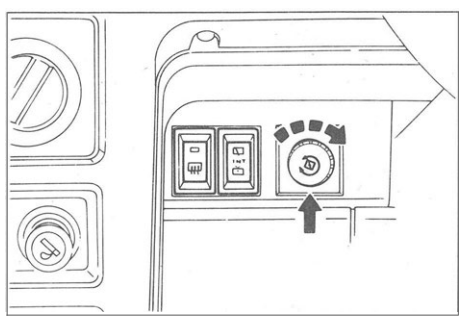
Turn the starter key to the "ON" position and check to see that the glow plug indicator light has turned on. As soon as the glow indicator light has gone off, fully depress the clutch pedal and move the transmission gear lever to Neutral. The clutch can then be released.

On initial engine start on cold days, press the switch to quickly warm up the engine. The indicator light in the switch glows when the switch is in use (turn off when the engine becomes warm by pressing the switch again).



Crank the engine by turning the starter key to the "START" position. Release the key when the engine has started. It will return to the "ON" position.

If necessary to achieve a smooth idle, turn the idling control button clockwise. Remember to turn it fully anti-clockwise when the engine has warmed up (as indicated by the coolant temperature gauge).



NOTE: Do not keep cranking the engine for more than 30 seconds if the engine fails to start. Wait for 30 seconds before trying again.

Diesel turbo operating precaution

ENGINE STARTING Do not operate the engine above idle before normal engine oil pressure has been established (such as applying full throttle immediately upon initial start-up). This causes the turbocharger to operate at excessive speed before the bearings receive adequate lubrication.

Operation of the turbocharger for a period as short as 5 seconds without sufficient oil can cause bearing failure.

ENGINE STOPPING Do not turn off the engine immediately after it has been running at high speeds or under heavy loads. The engine should first be allowed to idle, as shown in the chart.

Failure to do this will cut off oil supply to the turbocharger bearings, causing turbocharger failure.

Driving condition	Idling time
High-speed driving about 80km/h	30 seconds
High speed driving about 100 km/h	1 minute
Steep mountain slope or continued driving above 100 km/h	2 minutes

EXHAUST GAS WARNING - (Carbon monoxide poisoning)

Exhaust gases contain carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animals.

You could inhale the gases if the exhaust system on your vehicle is faulty.

To protect against exhaust gas entry into the interior of the vehicle we recommend that the exhaust system and body be thoroughly inspected:

- each time the vehicle is serviced
- whenever a change is noticed in the sound of the exhaust system
- whenever the exhaust system, underbody or rear of the vehicle is damaged.

Take the vehicle to your Holden Dealer if you think your vehicle needs inspecting for any of the above reasons.

DO NOT SIT (OR LEAVE THE CHILDREN OR PETS) IN A PARKED VEHICLE FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA SUCH AS THE GARAGE, ANY LONGER THAN IS NEEDED TO MOVE THE VEHICLE.

Driving with the tailgate open is not recommended. If you must travel with the tailgate open, close all windows, ensure that the heater controls are set to outside (rather than re-circulate) with the air directed to the face and the fan on the highest speed. Switch on the air conditioning, if fitted. Do not exceed 50 km/h unless necessary.

BEFORE ENTERING THE VEHICLE

1. Check that windows, mirrors and lights are clean.
2. Check tyre inflation.
3. If you intend to reverse, check that the area behind your vehicle is clear.

BEFORE DRIVING OFF

1. Be sure that all doors are secured.
2. Position your seat for comfortable driving.
3. Adjust rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that all the warning indicators light up when you turn the key to start the engine.

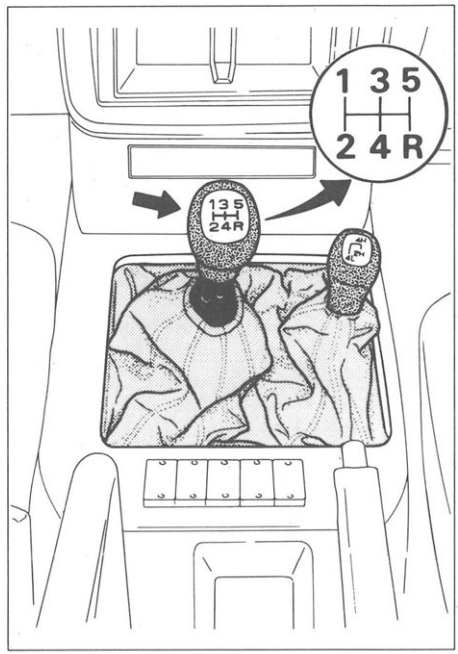
PARKING

1. Apply the park brake.
2. Place automatic transmissions in PARK. Place manual transmissions in REVERSE if pointing downhill or in 1st gear if pointing uphill.
3. Ensure that the 4WD lever is in 2H, 4H or 4L (not neutral).
3. Turn ignition key to LOCK and remove the key.
4. Shut all windows, lock all doors and ensure all lights are turned off.

CAUTION: Be careful where you park or drive. As with any vehicle, do not park or operate this vehicle in areas where combustible materials such as dry grass or leaves can come in contact with a hot exhaust system.

This transmission has 5 fully synchronised forward gears. The shift pattern is shown on the end of the gear shift lever.

Never attempt to engage Reverse gear until the vehicle has completely stopped. A slight pause between depressing the clutch pedal and moving into "Reverse" gear is desirable to allow all the rotating components to stop and avoid gear crashing.



OPERATING NOTES

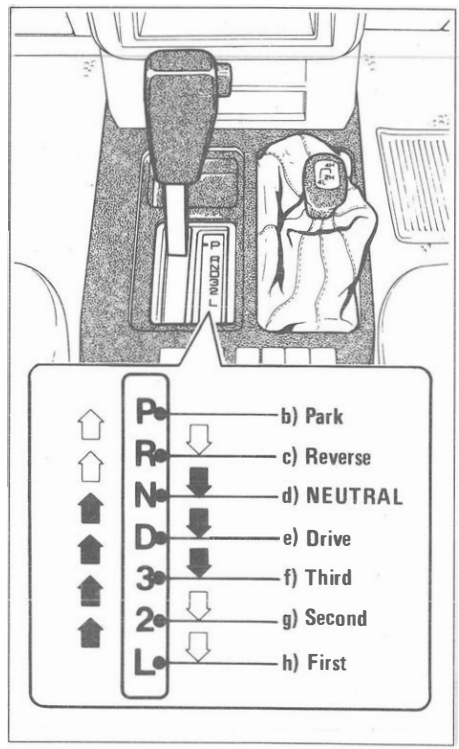
- When shifting from one gear to another, be sure to depress the clutch pedal fully to avoid clashing and possible chipping the transmission gears.
- Shift the gear with a moderate effort to allow time for the transmission synchronizers to work properly.
- Whenever "Reverse" is selected with the ignition on, the back-up lights will operate.
- Do not drive with your foot resting on the clutch pedal as damage to the clutch may result.
- When stopped on an incline do not hold the vehicle by slipping the clutch. Use the park brake or brake pedal.
- When climbing steep grades, change down to a lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the decent.
- Do not overspeed the engine when shifting down to the next lowest gear.
- 5th gear is recommended for maintaining highway cruising speeds and is not recommended for heavy city traffic.

Depress the square release button on the right side to the T-bar handle when shifting to R or P and when shifting from 3 to 2 to L, as indicated by the white arrow.

You may shift without depressing the release button into any positions indicated by the black arrow.

NOTE: The engine will not start unless the selector is in P(park) or N(neutral).

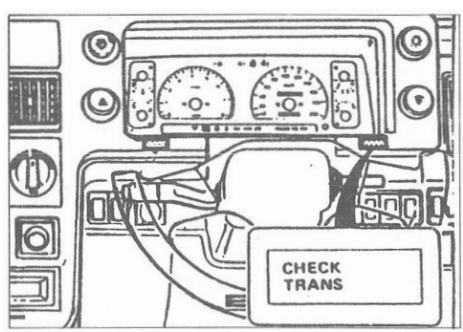
To prevent the vehicle 'creeping' you should always have your foot on the brake pedal when shifting out of Park.



CHECK TRANS

To see if the bulb is working, the CHECK TRANS light on the dash is displayed when the key is turned to ON (for location see page 1-8). If this light comes on while driving it indicates that the automatic transmission fluid temperature is high.

You should stop a soon as it is safe to do so, leave the engine idling and the selector lever in "P". If the light goes out then you may resume driving. If the light does not go out you should have the transmission checked by a Holden Dealer as soon as possible.



NOTE: If the light comes on while you are driving at high speed, ensure the transfer lever is set to 2H and the wheel hubs set to *free*.

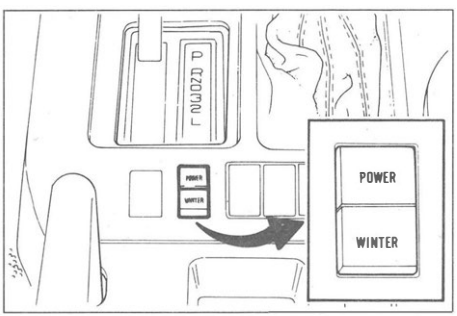
If CHECK TRANS flashing

If the light flashes it means that the computer controlling the transmission has found a problem. The vehicle can still be driven when the light is flashing but should be checked by your Holden Dealer as soon as possible.

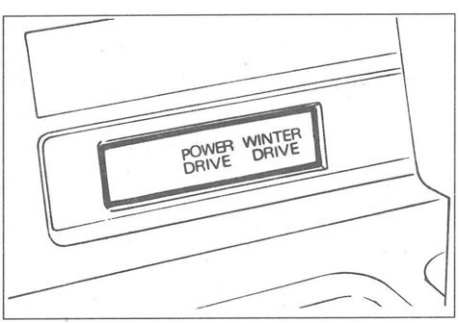
Depending on the nature of the problem, the transmission may still be able to change gears without your assistance. However, in some cases the transmission's computer may put the transmission into 'safety mode'. In safety mode the transmission may not shift automatically and you must then shift the T-Bar lever to change gears at the following recommended speeds.

- High speed driving (over 80 km/h): select "3" or "D".
- Moderate speed driving (under 80 km/h but over 25 km/h): select "2".
- Starting from a stop, driving up or down a steep hill, or for engine braking when towing a trailer downhill: select "L".

Power/Winter/Normal drive



The two buttons marked POWER and WINTER control the three shift patterns available with your automatic transmission: POWER, WINTER and NORMAL. When the POWER button is pressed in, the power light is illuminated and the transmission is operating in the power drive mode, likewise for WINTER. When neither button is pressed in (and no light is illuminated) the NORMAL pattern is selected.



NORMAL drive is the most effective pattern for normal or freeway driving and allows for maximum fuel efficiency.

The POWER drive is recommended when overtaking and gives acceleration, especially in hilly areas or when towing.

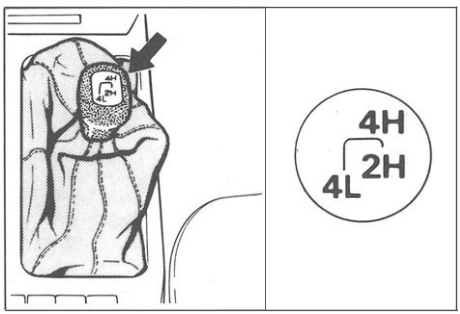
WINTER drive is only recommended on slippery roads, as operation in WINTER drive during normal driving conditions will cause decreased performance and sluggish acceleration.

The winter mode may be activated when the T-Bar lever is in D and vehicle speed is less than 10 km/h and will be automatically deactivated when vehicle speed reaches approx 30 km/h. It can also be deactivated by moving the T-bar lever to any position other than D, by pushing the WINTER button or turning off the ignition. WINTER drive is recommended when slowly starting off in slippery conditions; the vehicle will start off in 3rd gear.

P (park)	This stops the rear wheels from turning and should be selected (together with the park brake) when leaving the vehicle. Never select P until your vehicle is fully stopped. The P position is one of only 2 positions (the other is N) in which your engine may be started.
R (reverse)	Never select R until your vehicle is fully stopped. Reversing light will operate when R is selected and the ignition is on. After reversing, make sure the vehicle has fully stopped before proceeding forward again.
N (neutral)	This is the out-of-gear position. You may then restart a stalled engine while the vehicle is still moving.
D (drive)	This is the normal forward driving position and allows the transmission to choose the appropriate gear (1st through to 4th) for the driving conditions and optimum fuel economy.
3 (third)	This position allows the transmission to shift to 1st, 2nd or 3rd gear as conditions require. 4th gear is excluded. Use this position when going down a long hill or on a road with many sharp curves. Shift back into the "D" position to return to normal driving.
2 (second)	This position allows the transmission to shift to 1st or 2nd gear. Use this position when going down a moderate gradient where you want to slow down a little without using the brake. Shift back into the "D" position to return to normal driving.
L (low)	The transmission cannot shift out of 1st gear when in this position and should only be used when strong braking effect is needed on a very steep hill. The T-bar lever can be shifted back to "L" at any speed. However, the transmission will not actually enter 1st gear until vehicle speed is below 60 km/h. Remember to shift back to "D" to resume normal driving.

- Do not go from P or N to R or D with the accelerator pedal depressed.
- When driving down a long hill, reduce your speed and select a lower range. The engine will provide a braking effect. Remember if you ride the brakes, they may overheat, resulting in reduced performance. This is particularly important when towing.
- Be careful when accelerating, upshifting, downshifting or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the drive wheels to spin or skid.
- Don't rev the engine with the brakes on in either L, 2, 3, D, or R. This will overheat the transmission.
- Don't rev the engine to hold the car on a slope. Use the brakes.
- Don't ever coast the vehicle in N - this lessens your control and the engine braking power.
- Always slow down in gusty crosswinds.
- Refer Chapter 6 for checking automatic transmission fluid level.

TRANSFER LEVER



When the transfer lever is in 4H or 4L the indicator light on the instrument panel will glow.

2H: Two wheel drive, high range. Use this for normal driving on sealed roads. This position gives greater economy, quieter ride and least vehicle stress.

4H: Four wheel drive, high range. Use this for icy or snow covered roads and loose surface such as gravel. This position provides greater traction than 2WD. Top speed is limited to 80 km/h.

4L: Four wheel drive, low range. Use this for maximum power and traction. Use 4L for climbing or descending steep hills, off-road driving and hard pulling in sand, mud or deep snow.

Do not use 4WD for normal driving on sealed roads. It will cause unnecessary noise, poor fuel consumption and stress 4WD components.

When shifting the transfer lever between 4H and 4L be sure to shift quickly and securely. Slow shifting may cause some noise.

When the transfer lever is not securely in gear (2H, 4H or 4L) driving force cannot be transmitted to the wheels. Driving with the transfer lever not securely in gear may cause damage to the transfer gear box.

If your vehicle is fitted with an automatic transmission, be careful not to exceed the following maximum speed in each range when accelerating.

Transfer control lever	L	2	3
2H	56 km/h	93 km/h	-
4H	56 km/h	80 km/h	80 km/h
4L	24 km/h	40 km/h	40km/h

WHICH 4WD SYSTEM HAVE YOU GOT?

Two types of 4 Wheel drive operating systems are available. One has *automatic* locking hubs, one has *manual* locking hubs. To determine which system is fitted to your vehicle, look at the centre of one of the front wheels (the wheel hub). If it is printed with an arrow and the words "LOCK' and "FREE", then yours is the *manual* system where, to select 4WD, you must twist the wheel hub as well as moving the transfer lever inside the vehicle. If there are no instructions on the hubs, then yours is the *automatic* system, where the hubs are locked and unlocked automatically when the transfer lever inside the vehicle is moved.

To determine whether your vehicle is fitted with *automatic* locking hubs or *manual* locking hubs refer to the page 3-9. Instructions for *manual* locking hubs are given on page 3-11. The following instructions are applicable to *automatic* locking hubs only.

When driving, two aspects of the system fitted to your vehicle must be considered:

- whether the transfer gear box is in 2WD or 4WD
- "locking" and "unlocking" of the wheel hubs.

These aspects are dependent on the position of the 4WD transfer lever and the direction of vehicle travel (forward or reverse).

If you have been driving in 2WD and are changing to 4H, STOP the vehicle and move the 4WD transfer lever to 4H. If your vehicle is fitted with an manual transmission you may move the 4WD transfer lever without depressing the clutch pedal.

When you drive off the transfer gear box will be in the 4H position and after 1 meter of driving the wheel hubs will lock automatically. Therefore, you will not have 4WD ability until 1 meter of driving.

Likewise, if you should stop the vehicle and reverse down the track the hubs will (after 1 meter) unlock, before locking back up again: whenever direction is reversed the hubs will unlock and the lock back up again when the transfer lever is in 4WD.

However, when driving continuously forward the hubs will remain locked, even if the transfer lever is shifted back from to the 2H position. The 4WD light on the dash will go out because the vehicle is driving in 2WD but because the hubs are still locked (you have not revered for 1 meter approx.) poor fuel consumption and vehicle stress will be result.

Therefore, as conditions permit, you may move the lever between 2H and 4H while driving, provided the hubs are locked. However, to properly shift back to 2WD, stop the vehicle, ensure the transfer lever is in 2H and reverse for at least 1 meter before proceeding forward.

Never shift the 4WD transfer lever away from 2H while the vehicle is moving if the hubs have not been locked from previous driving.

To move to 4L

AUTOMATIC TRANSMISSION: If your vehicle has an automatic transmission, stop the vehicle and move the transmission T-Bar lever to "N", before moving the 4WD transfer lever to 4L.

MANUAL TRANSMISSION: If your vehicle is fitted with an manual transmission first completely stop the vehicle, before depressing the clutch pedal when moving the lever.

Note that when operating the vehicle in 4WD and turning hard left or right while driving, a braking condition may be noticed. This is typical of 4WD vehicles. As soon as the steering is returned to the neutral or straight ahead position, or the transfer lever moved to 2H this condition is no longer experienced.

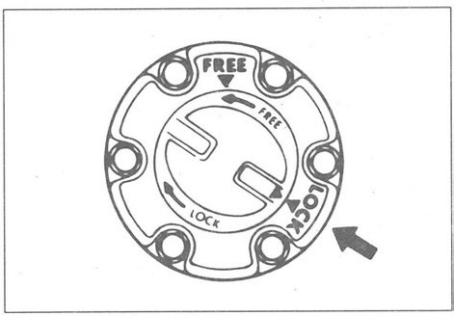
To lubricate the front wheel drive axle, the vehicle should be driven for at least 20 km every month in 4WD (with the wheel hubs locked).

To determine whether your vehicle is fitted with *automatic* locking hubs or *manual* locking hubs refer to the page 3-9. Instructions for *automatic* locking hubs are given on page 3-10. The following instructions are applicable to *manual* locking hubs only.

4 Wheel drive/2 wheel drive selection is made by both transfer lever position (from inside the vehicle) and front (left and right) wheel hub position. That means that the vehicle will not operate in the 4 wheel range until the wheel hubs have been locked - even if the transfer lever is in the 4L or 4H position.

To move from 2H to 4H

1. Move the lever to 4H. If front hubs are already locked, 4WD can be selected while driving. If front hubs are unlocked then you must *never* shift the lever while the vehicle is in motion.
2. Set both left and right wheel hubs to the "LOCK" position.



To move between 4H and 4L

AUTOMATIC TRANSMISSION: If your vehicle has an automatic transmission, stop the vehicle and move the transmission T-Bar lever to "N", before moving the 4WD transfer lever to 4L.

MANUAL TRANSMISSION: If your vehicle is fitted with an manual transmission then you must depress the clutch pedal when moving the lever. Provided the front hubs are locked, shifting from either 2H or 4H to 4L may be done while driving, but must be performed within the speeds given below.

Gear shift lever position	1st	2nd	3rd to 5th
Vehicle speed	15 km/h	25 km/h	40km/h

To select 2WD

1. Shift the transfer lever to 2H.
2. Set both left and right front wheel hubs to the "FREE" position.

2H can be selected at any speed by the transfer lever. The indicator light on the dash will go out because the vehicle will be driving in 2WD but until the hubs have been unlocked poor fuel economy will result.

MANUAL LOCKING HUB CAUTIONS:

Never drive the vehicle with the front wheel hubs in the "FREE" position and the transfer lever in 4H or 4L.

Never LOCK one hub only - both sides must be either in the locked or freed position.

Vehicles should never be operated on hard surfaces or sealed roads for a distance above 1/4 kilometre in 4L or 4H with the hubs in the "LOCK" position.

To lubricate the front wheel drive axle, the vehicle should be driven for at least 20 km every month in 2WD with the wheel hubs in the LOCK position.

Overloading is a safety hazard and could also shorten the life of your vehicle or its parts.

CURB MASS

The curb mass shown below are for the weight of a standard unloaded vehicle with a full tank of fuel. The weights shown below are far a vehicle fitted with a manual transmission. If your vehicle is fitted with an automatic transmission add 20 kg.

Petrol, long wheel base - 1,865 kg

Petrol, short wheel base - 1,790 kg

Diesel - 1,955 kg

G.V.M.

Gross Vehicle Mass (G.V.M.) is the total weight that a vehicle is allowed to weigh when fully loaded. This must include luggage, passengers, a full tank of fuel and tow bar ball load. The maximum, allowable G.V.M. for your Jackaroo is 2,500 kg.

TOWING CAPACITY

You may tow a loaded caravan or trailer weighing up to 1,600 kg if it is fitted with driver initiated braking (NOT over-rub operated trailer brakes) *or* 750 kg if the trailer does not have brakes.

TOW BAR BALL LOAD

Tow bar ball Load is the weight on the tow bar ball when the packed trailer is hitched.

Ideally, the ball load should be 10% of the packed trailer weight. This can be adjusted by correctly packing the contents of the trailer.

If the ball load is too light or too heavy, the steering and handling of the vehicle will be greatly impaired.

G.C.M. (Gross Combined Mass)

G.C.M. is the maximum, allowable combined weight of a vehicle (with passengers, luggage and a full tank of fuel) plus the weight of a packed trailer.

The maximum, allowable G.C.M. for your Jackaroo is 4,100 kg.

FRONT & REAR AXLE LOADS

The maximum allowable front axle load is 1,250 kg. The maximum allowable rear axle load is 1,400 kg. However, the combination of the front and rear axle load should never exceed the maximum G.V.M.

Remember to take the tow bar ball load into account when determining the rear axle load.

SAFE TOWING TIPS

Your vehicle will handle differently with a towed load. It's a good idea to make a proper familiarization run.

Have your vehicle correctly maintained and serviced.

You should have an extended-arm mirror on both sides of your vehicle.

Headlights may need re-aiming after the loaded trailer has been hitched.

Use a lower gear, rather than your brakes when descending steep hills.

Avoid sudden steering maneuvers at high speed to minimize trailer weight affecting vehicle and trailer control.

TOWING PRECAUTIONS

1. Do not use axle-mounted hitches.
2. Trailer brakes must meet State Law requirements where you will be driving. Some States specify that the maximum load to be towed must not exceed the vehicle weight.
3. It is permissible to tap into the brake system with a unit not more than 0.21cc of fluid displacement during the operation of the brakes.
4. Ensure that the tow bar does not obscure the rear licence plate, as this may violate State Law. If necessary, the tow bar tongue may need to be removed when not required for towing.
5. Whenever a tow bar is removed be certain to have any mounting holes in the underbody properly sealed to prevent the possible entry of exhaust fumes, dust and water.
6. Correctly rated tow bar and tongue package must be used.
7. If your vehicle has an automatic transmission then the fluid in the transmission will have to be changed more often when towing, refer page 8-3.

ROOF RACKS

It must be understood that roof rack loads alter the handling characteristics of a vehicle due to a change in the centre of gravity. When carrying loads on the roof rack avoid abrupt swerving or sharp steering maneuvers.

Remember to take the roof rack load into account when determining G.V.M. and G.C.M. as your vehicle cannot carry more, just because it is stowed on the roof.

RUNNING-IN

These days, there's no need to follow the formal running-in schedule. However, by observing a few simple precautions during the first few hundred kilometres of driving you will greatly assist your vehicle's future performance and economy.

For the first 800 kilometres, don't exceed 90 km/h and avoid driving at any one speed - either slow or fast - for any length of time. Therefore, avoid using the cruise control (if fitted) while "running-in".

Always drive at moderate speed until the engine has completely warmed up.

For the first 800 kilometres heavy braking should be avoided, except in an emergency, since brake misuse during this period could impair future braking efficiency.

It is best to drive your new vehicle for 1,500 kilometres before towing a load. If you must tow before this do not exceed 80 km/h on good roads. No heavy off road towing should be attempted before 1,500 km.

HOW TO REDUCE FUEL CONSUMPTION

VEHICLE MAINTENANCE Maintain your vehicle in peak mechanical condition by having it serviced regularly in accordance with the Maintenance Schedule, refer page 8-2. This will ensure items such as spark plugs, air cleaner etc. are maintained for least fuel consumption.

TYRE PRESSURES Keep the tyres at the recommended pressures. Under-inflated tyres create extra rolling resistance which contributes to increased fuel consumption, refer page 6-11.

WHEEL ALIGNMENT Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag and increases fuel consumption.

WARM UPS AND EXCESSIVE IDLING Avoid long engine warm ups. They are unnecessary and waste fuel. An engine takes approximately five minutes to reach its efficient operating temperature and it does this most effectively by driving on the road. You should also avoid excessive engine idling. If your have to wait for more than a couple of minutes turn off the engine to conserve fuel.

ACCELERATING, DRIVING AND BRAKING Accelerate gently - avoid rapid starts, sudden bursts of speed and full throttle accelerations - they're certain fuel wasters. Drive the vehicle at steady speeds where possible (after run-in). It is desirable to achieve top gear operation as soon as possible, but under no circumstances should you force the engine to labour in top gear.

AIR CONDITIONING (if fitted) If your vehicle has air conditioning turn off the switch when not needed.

EXCESS WEIGHT Fuel economy is related to the work the engine must do. The heavier the load, the more fuel it takes to run. Keep weight to a minimum by removing unnecessary cargo.

BRAKES "Riding the brake" by resting your foot on the brake pedal when you do not intend to brake can cause overheated brakes. This can wear out the brake linings and pads faster, damage the brakes and waste fuel.

4WD / 2WD In normal driving, shift the transfer lever to 2H and ensure the hubs are unlocked.

JACKAROO

Jackaroo models have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. Specific design characteristics give them a higher centre of gravity than ordinary vehicles. An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems. They are not designed for cornering at the same speeds as conventional 2 wheel drive vehicles any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions. If at all possible, avoid sharp turns or abrupt maneuvers. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle roll over. Always use your seat belt.

BRAKES

- Power assisted brakes, which are fitted to your vehicle, utilise vacuum from the engine when it is running. Never let the vehicle run down steep grades without the engine running. Never coast with the engine switched off.
- If the power assist is loss because of a stalled engine they are designed to have enough reserve vacuum for you to bring the vehicle to a full stop by applying the brake pedal once - do not pump the brake pedal to stop the vehicle.
- A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other materials are on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.
- Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.
- Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.
- Your seat should be positioned so that you can reach the brake pedal satisfactorily under all braking conditions.

STEERING

- Power assisted steering, which is fitted to your vehicle, has been designed to reduce steering effort. It uses hydraulic pressure to lighten steering loads and is designed so that “road feel” is retained. Care should be taken not to hold a turning force on the steering wheel when stationary (i.e. when waiting before turning a corner, etc.) as this creates unnecessary high operating pressures within the system.
- If the power steering is rendered ineffective because the engine has stalled, the drive belt broken or if the pump reservoir is empty of fluid, the car can still be steered. However, due to the much greater effort required to steer, it is recommended that you have the problem fixed promptly.

LOOSE ARTICLES

Whenever possible, loose articles should be firmly secured, as they can become flying projectiles in accidents. Storage areas include the glovebox, the console, seat back storage pockets, tie down straps in the luggage area, and (on some models) storage bins under the rear seat.

MODIFICATIONS TO YOUR VEHICLE

Any modification (including fitting non approved accessories) to your vehicle could affect its performance, safety, or durability and possibly invalidate the warranty. In particular:

- Incorrectly mounted bull bars may affect vehicle handling and cause damage to the frame of the vehicle.
- Insulation-piercing quick fit type wiring connectors may damage wiring and electronic components.
- Under no circumstances should the engine or transmission computer systems be altered or added to.

Not only will the fitting of unapproved items be likely to damage your vehicle, but many are illegal, for instance tow bars and bull bars are covered by legal requirements. You should contact your Holden Dealer for assistance, if required.

WARNING

The fitting of a non-Holden bug deflector on the front edge of the bonnet is not recommended. A non-Holden bug deflector may cause the engine to overheat by deflecting air from the engine air intake, located to the rear of the bonnet.

PARKING - automatic transmission

If the vehicle is parked on a hill, always apply the park brake before placing the transmission in Park. Otherwise the weight of the vehicle may put so much force on the transmission that it may be difficult to pull the lever out of Park.

Therefore, when parking, always apply the park brake before moving the lever to Park. When preparing to move off, put your foot on the brake pedal, shift the lever out of Park and *then* release the park brake.

WATER CROSSING

Whenever driving across a shallow river or deep puddle, extreme care must be exercised or water may enter the engine air intake causing serious engine damage.

To prevent water being forced through the grille into the engine compartment, tie a sheet of canvas or some other suitable material to the underside of the front bumper bar and wrap it over the bumper, grille and top of the bonnet with a tie back to the door mirrors.

Remember that steady speed and constant traction are necessary for successful water crossing.

When the crossing is completed, remove the canvas.

After deep water crossing, check to ensure that no water has entered and mixed with the oil of the following components: engine, transmission, transfer, front and rear differential, refer page 6-9.

DISC BRAKE WEAR INDICATORS

Front and rear disc brakes have built-in wear indicators which should make a high-pitched squealing or cricket-like warning when the brake pads are so worn that new pads are needed. The sound will come and go, or be heard all the time when the vehicle is moving and may stop when the brake pedal is pressed down firmly. Expensive disc damage can result if pads are not replaced when needed.

Chapter 4

Accidents and emergencies

Page

4-2 What to do at the scene of the accident

4-3 Medical assistance

4-4 Flat tyre

4-6 Engine overheating

4-8 Flat battery

4-10 Bleeding of fuel system (Diesel)

4-10 Draining of water separator (Diesel)

4-11 Towing a vehicle

4-12 Freeing a vehicle from sand

4-12 Circuit breaker - electric windows

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to mouth resuscitation or may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs.

The following notes may help.

Part 1. ACCIDENT - BEING INVOLVED

If you are involved in an accident you are advised to do as follows:

Stop immediately and remember to turn off the engine and apply the park brake.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons (see Part 3. Medical assistance).

Send for police and ambulance if anyone has been injured. Send information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others.

Clear the road of accident debris.

Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property or to his or her representative, to any police present at the scene or to the nearest Police Station.

Try to note all important facts because such details may be important if needed later.

Part 2. ACCIDENT - BEING A WITNESS

If you witness a road accident or it becomes your task to stop and help at the scene of an accident, do this:

Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.

DO NOT stop at the scene of an accident just to be a spectator.

Where other people are already in attendance and giving assistance, you should stop only if you can contribute assistance.

Give what assistance you can to any injured persons. (See Part 3. Medical assistance).

Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

Part 3. MEDICAL ASSISTANCE

Keep calm and think clearly.

Your experience may not be much but do your best. Don't just stand by and let an injured person die.

- Look after the unconscious person first. Check for breathing. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.

Unconscious people can choke.

Carefully turn to one side.

Tilt the head back slightly.

Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

- You must be most careful in moving an injured person. Often it is best not to move at all but in conditions of danger, this is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.
- Provided it is not dangerous to do so because of other injures, an unconscious person will do best in the position illustrated here.

Lay the person on one side and - if it will not aggravate any injuries - then:

Bend the uppermost knee until the thigh is at right angle to the body.

Bend the uppermost arm and elbow so that the hand lies near the face.

Gently pull the underneath arm so that it rests straight on the ground free of any body weight.

- Try to stop bleeding by applying direct pressure, using your hand, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary press one pad on top of another. Keep pressure around edges of a wound BUT NEVER USE A TOURNIQUET.
- Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm but not hot. Best not to give any fluids and NEVER ALCOHOL.
- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending the neck, spine and injured limbs. Keeping the neck and spine straight is most important.

Illustrations reproduced from "The Victorian Road Code" with permission from Road Safety and Traffic Authority of Victoria.

Driving for even a short distance on a deflated tyre can damage a tyre and wheel beyond repair.

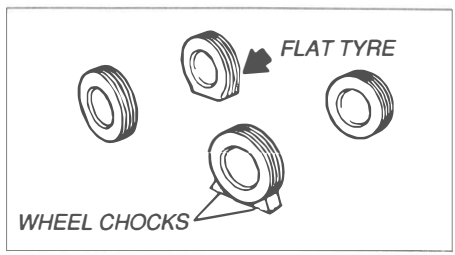
CAUTION:

- Use jack only for lifting this vehicle when changing wheels.
- Never get beneath the vehicle when it is only supported by the jack.
- Do not start or run the engine while the vehicle is only supported by the jack.
- All passengers should be out of the vehicle when it is being jacked.
- Use the jack only at the designated lifting points. Use in other locations can cause vehicle damage.
- The vehicle should only be jacked on hard, level surfaces.

1. Park on level surface and set parking brake firmly.

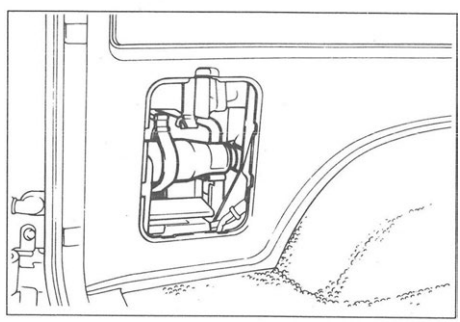
2. Set automatic transmissions in park or manual transmissions in reverse. Ensure that the transfer lever is firmly in gear (2H 4H or 4L). Remove the ignition key. Turn on the hazard warning flasher if appropriate.

3. Block the wheel diagonally opposite the flat tyre.



4. Remove the jack, jack handle and wheel wrench, which are installed in a compartment on the passengers side of the rear load area.

   Remove the spare wheel, mounted on the back door.

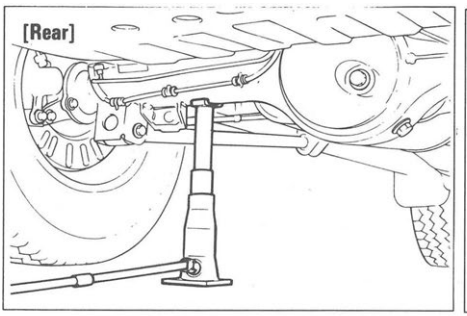


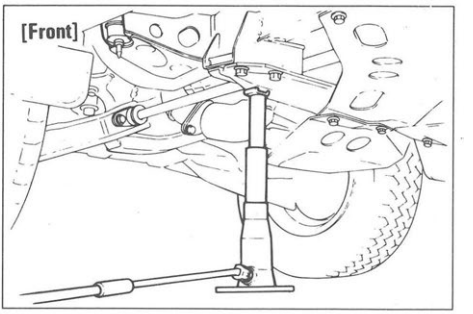
5. Remove the wheel trim.

6. Loosen, but do not remove, wheel nuts by turning the wrench anti-clockwise.

7. Insert one end of the jack rod into the jack and the other end of the jack rod through the wheel wrench. The wheel wrench then becomes an extended handle for the jack.

8. Position the jack under the vehicle, according to the illustration. The rear jack position is under the rear axle, near the wheel. The front jack position is at the bottom surface of the cross member.





9. Remove the wheel nuts and remove the wheel.

10. Replace the wheel nuts with the cone shaped end towards the wheel. Tighten the wheel nuts with your fingers in a criss cross pattern. Then, tighten the wheel nuts with the wheel wrench, again in a criss cross pattern. Ensure that the wheel is seating squarely against the hub and is not tilted.

11. Lower the vehicle until the wheel touches the ground and is held from rotating. Fully tighten the wheel nuts in a criss cross pattern.

12. Replace the wheel trim.

13. Completely lower the vehicle and remove the jack using the handle in the bracket provided. The jack should be completely lowered before stowing.

14. Stow the tools and changed wheel, as shown on previous page. Note that the spare wheel fits on the tailgate with the dished side of the wheel turned to the tailgate.

CAUTION:

As soon as possible after changing a wheel, you should have the wheel nuts tightened with a torque wrench to 118Nm (87 ft-lbs).

Wheel nuts should be tightened evenly to the correct torque in a criss-cross pattern. Improperly tightened wheel nuts could eventually allow the wheel to come off while the vehicle is moving!

Never use oil or grease on wheel studs or nuts. Sparingly apply Loctite® anti-seize compound (or similar) to wheel stud threads to prevent nuts from seizing on the thread. Anti-seize compound should not get on the tapered end of the wheel nut. To ensure this does not happen, do not apply anti-seize compound to wheel nuts, but only to the wheel studs.

CAUTION: If the engine should overheat, as indicated by the temperature gauge reading or if you suspect there is a serious overheat condition immediate action is required. Continued operation of the engine EVEN FOR A SHORT TIME could result in a fire and the possibility of personal injury and/or severe vehicle damage.

If the coolant temperature gauge needle should move all the way to the "H" position and remain there for more than 30 seconds, pull out of the traffic as soon as it is safe to do so and stop the vehicle. Leave the engine idling for a few minutes whilst you step out of the vehicle to check that the cooling fan is working. If the fan is working and the temperature gauge needle has not returned to its normal position within the time then **stop** the engine and proceed as follows:

CAUTION:

Do not open the bonnet if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the bonnet.

Do not remove the radiator or reservoir cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious personal injury.

If no steam or coolant can be seen or heard, raise the bonnet. If the coolant is boiling, wait unit it stops before proceeding. Look at the coolant level in the see-through reservoir.

If the coolant level in the reservoir is lower than the "MIN" line, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump. If you find major leaks, or spot other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected. If you do not find a leak or other problem, then the cooling system should be filled to the "MAX" line with specified coolant, see page 6-5.

Do not over fill the reservoir. The radiator filler cap should not be removed unless necessary. The coolant level should be checked regularly when the engine is cold. Supplement inhibitors or additives claiming to provide increasing cooling capability that have not been specifically approved by Isuzu-General Motors A.L. are not recommended for addition to the cooling system. It is the owner's responsibility to keep the freeze protection at a level commensurate with the temperature which may occur in the area of vehicle operation.

CAUTION: Do not remove the radiator or reservoir cap if the engine is still hot because the cooling system will blow out scalding fluid and steam under pressure which is likely to cause serious personal injury and loss of coolant.

After taking one or more of the actions above and once the temperature gauge no longer signals an overheat condition you can resume driving at a reduced speed. Return to normal driving after ten minutes if the temperature gauge does not again show an overheat condition.

If overheating occurs again you should have the vehicle attended to, as soon as possible, by a qualified mechanic.

NOTE: The engine may temporarily operate at high temperature during more demanding operating conditions, especially on very hot days. These conditions include:

- climbing a long hill
- stopping immediately after high speed driving
- idling for long periods in traffic
- towing a heavily laden trailer or caravan.

You should avoid operating your vehicle for prolonged periods in any of the above circumstances if the temperature gauge indicates high engine coolant temperature. It may also be an advantage to turn the off the air conditioner (if fitted) in these circumstances.

CAUTION:

DO NOT attempt to "push start" or "tow start" your vehicle. Vehicles with diesel engines cannot be push started. Vehicles with petrol engines *should not* be push started as they are fitted with a catalytic converter and if uncombusted fuel were to reach the catalytic converter and ignite, the converter could overheat or be destroyed by backfire. Therefore only "jump starting" should be used if the battery is flat.

If your vehicle will not start due to a discharged battery, it can often be started by using energy from another battery - a procedure called "jump starting".

However, if after reading the following procedure you are still unsure about "jump starting" we strongly recommend for your safety and that of your vehicle that you leave the starting to a competent mechanic.

JUMP STARTING

CAUTION:

Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, to lessen the chance of personal injury when working near a battery:

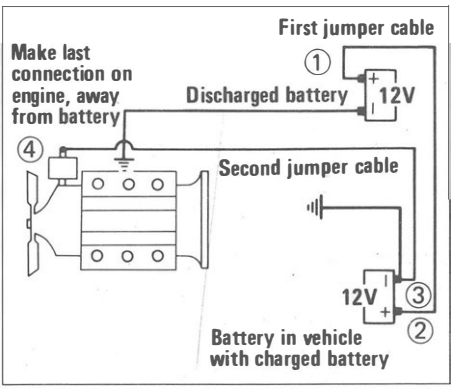
- Do not expose the battery to open flames or sparks. Battery action generates hydrogen gas which is flammable and explosive.
- Do not smoke near a battery.
- Do not use jumper leads which are in any way damaged, either with loose clamps or missing insulation.
- Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.
- Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact you should get medical help. Battery acid will also damage paintwork and fabrics if not washed off immediately.
- Be sure any batteries that have filler caps are properly filled with fluid. If the battery is completely sealed (without filler caps) and the fluid level is low the battery should not be jump started but instead should be replaced.
- To lessen the risk of a short circuit, remove rings, metal watch bands and other metal jewelry before working around the battery.
- Carefully follow each step in the jump starting procedures.
- Never use a quick charger to start your engine.
- If you have a telephone fitted to your vehicle, you should remove the fuse for the telephone before jump starting. Remember to reinstall the fuse afterwards.

1. The battery of your vehicle has a negative earth and a 12 volt rating. The battery in the other vehicle (that is being used to jump start the flat battery) must be the same voltage and also have a negative earth. So, check the specifications in the other vehicle's owner manual to see if it complies. Serious injury or damage may result if the wrong type of battery is used.

2. Position the two vehicles so that they are NOT touching and apply the park brakes. Automatic transmissions are to be placed in PARK and manual transmissions placed in NEUTRAL. Turn off ignition and all lights and accessories in both vehicles, except the hazard warning flasher or any lights needed for the work area.

3. Attach one end of the red jumper cable to the positive terminal of the other vehicle's battery (identified by a red colour, + or P on the battery case, post or clamp) and the other end of the red cable to the positive terminal of your vehicle's battery.

4. Attach one end of the black jumper cable to the negative terminal of the other vehicle's battery (identified by a black colour, - or N on the battery case, post or clamp) and the other end of the black cable to a solid stationary, metallic point on your vehicle's engine which is at least 1/2 meter away from the battery. **To reduce the chance of an explosion due to sparks, DO NOT CONNECT DIRECTLY TO NEGATIVE POST OF YOUR VEHICLE'S BATTERY.**



The mounting brackets for the alternator, the air conditioning compressor generally make a good point for this final negative connection.

5. When making all connections take care that the clamps from one cable do not inadvertently touch the clamps on the other cable. Also, ensure that jumper cables are not on or near pulleys, fans or other points that will move when the engine is started.

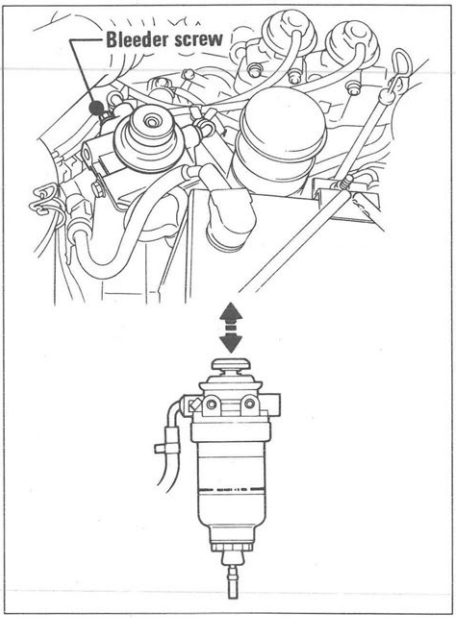
6. Start the engine in the other vehicle and run the engine at a moderate speed. Then start the engine in your vehicle.

7. When the engine starts, leave it running as you remove the jumper cables by reversing the above sequence exactly. Start by removing the last clamp first: that is, remove the jumper cable from the engine of the vehicle with the discharged battery as the first step. While removing each clamp, take care that it does not touch any other metal while the other end remains attached.

BLEEDING FUEL SYSTEM

If the fuel tank has been emptied, the chance is that air might have entered the fuel system. With air in the fuel system, smooth flow of fuel into the engine is interrupted and to correct this, bleeding of the fuel system should be performed after refuelling.

1. With a wrench or screwdriver, loosen the bleeder screw on the fuel filter.
2. Operate the priming pump up and down until fuel comes out. Continue pumping until no air bubbles appear in the fuel being pumped out.
3. After bleeding, securely tighten the bleeder screw clockwise.
4. Operate the priming pump up and down several times.



DRAINING WATER SEPARATOR

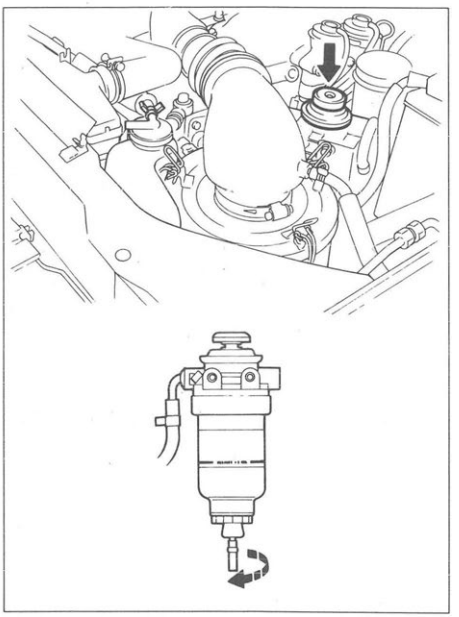
The fuel filter has a sedimentor chamber for settling water separated from fuel. If the indicator glows on the dash (refer page 1-7) the water in the sedimentor chamber must be drained.

Open the bonnet and place a small container (approximately 0.2 litre capacity) at the end of the vinyl hose beneath the drain plug on the separator.

Loosen the drain plug by turning it approximately 5 turns anti-clockwise. Operate the manual pump up and down (about 10 times) until about 0.1 litres of water has been drained.

After draining, securely tighten the drain plug by turning it clockwise. Operate the manual pump up and down several times.

After starting the engine, check to see that no fuel leaks from the drain plug. Also check to see that the indicator light has turned off.



If the water separator requires frequent draining, have the fuel tank drained for removal of water at your Holden Dealer.

Proper lifting or towing equipment is necessary when lifting or towing the vehicle to prevent damage during any towing operation. Country, State and Local laws must be followed. In an emergency, your vehicle may be towed on all four wheels in the following manner:

- Fit the towing equipment to the main structural members of the vehicle. Do not attach to the bumpers or brackets.
- Place transmission in neutral position, release the park brake and ensure the transfer lever is in 2H and the wheel hubs are unlocked.
- For the sake of safety and to prevent damage to the vehicle it is advisable to avoid jerky movements and to drive slowly during towing operations.
- Do not exceed 50 km/h or tow further than 80 km. If exceeding these distances or speeds, disconnect the front and rear drive shafts at front and rear axle carriers and secure them in safe positions. *For your safety, securely block the wheels while disconnecting the drive shafts.*
- Vehicles with damaged transmissions, drivelines, axles or steering should not be towed.
- A separate safety chain should be used.

TOWING WITH ALL 4 WHEELS ON THE GROUND

- Switch the ignition key to "OFF" position to free the steering lock. When indicating a turn or using the wipers, switch the ignition to ON when required.
- Only the driver should be in a towed vehicle.
- Remember that power assist for brakes and power steering will not be available when the engine is off.
- To prevent the entry of exhaust fumes from the towing vehicle into the passenger compartment of your vehicle, close the windows and stop entry of air by moving heating and ventilation controls to "re-circulate" position.

TOWING WITH WHEELS OFF THE GROUND

Care should be taken to ensure adequate ground clearance at the opposite end of the vehicle when lifted.

In cases of rear end damage it may be necessary to lift the rear end of the vehicle and tow on the front wheels only. In such cases the steering wheel must be clamped in the straight ahead position using a clamping device designed for towing service use, such as those provided by towing equipment manufacturers. Do not use the vehicle's steering column for this purpose.

The vehicle MUST NOT be towed with the front free wheeling hubs locked, especially if it is to be towed with the rear of the vehicle lifted.

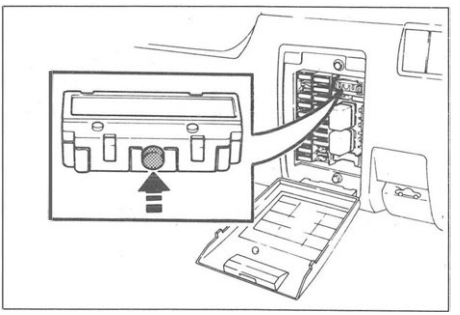
FREEING THE VEHICLE FROM SAND

If it becomes necessary to rock the vehicle to free it from sand, mud or snow, move the gear shift lever from second to reverse. Do not race the engine. For best possible traction, avoid spinning wheels when trying to free the vehicle. Use of tyre chains is recommended or temporary assistance when traction is lost on ice or snow.

CAUTION: Wheel spin should not exceed 55 km/h as indicated on the speedometer. Unless care is taken in limiting rear wheel spin, one spinning wheel can reach excessive speeds, resulting in possible tyre disintegration or differential failure, which could cause personal injury or extensive vehicle damage.

CIRCUIT BREAKER - electric windows

If the electric window switches do not work (due, say, to overloading) reset the circuit breaker (located with the fuses) under the right hand side of the dash.



First turn the ignition switch off before pushing the knob of the circuit breaker.

The switches should now operate.

However, if they still do not work, or if the circuit breaker immediately goes off again, you should see your Holden Dealer.

Chapter 5

Warranty, HoldenWise, Authorised Holden Dealers, Customer Assistance

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5-16 South Australia
5-17 Western Australia

5-18 **Customer Assistance**

Note: Dealership names and addresses are correct at time of printing. They may change from time to time without notice.

NEW VEHICLE WARRANTY

Isuzu-General Motors Australia Limited, Co. No. 006 962 572, hereinafter I-GM, warrants that it will make good without charge, any defect which appears in the vehicle identified in the vehicle identification certificate, found on the inside front cover of this handbook.

Provided

1. the defect has been notified to an authorised Holden Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km or,
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a demonstrator vehicle within 12 months of the date when is was first placed into service by the Dealer)

   whichever comes first, and

2. the vehicle has been returned to an authorised Holden Dealer or Service Dealer

   and

the Dealer has determined that the defect complained of is one of workmanship and *is not* caused by

(a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc., or by neglect
(b) operation of the vehicle after it is known to be defective
(c) accident or deliberate act
(d) atmospheric fallout or flood, hail, salt, etc.
(e) failure to carry out proper maintenance service
(f) use of incorrect types and grades of fuel, oil or lubricants
(g) alteration or modification of the vehicle by any party not authorised by I-GM
(h) the fitting of parts or accessories not marketed by I-GM
(i) any work carried out on the vehicle by someone other than an authorised Holden Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by I-GM) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF I-GM, BY REPLACEMENT.

Excluded from this Warranty are:

- defects in tyres (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filter, wiper rubbers, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

UNAUTHORISED STATEMENTS IN RELATION TO I-GM PRODUCTS

No Holden Dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any I-GM product or in connection with the supply of any I-GM product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by I-GM in its published sales literature, and the Company does not accept any such unauthorised action.

WARRANTY ON I-GM REPLACEMENT PARTS

I-GM warrants in respect of I-GM parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such I-GM parts and accessories within 12 months from the date of acquisition or in the case of an I-GM part or accessory which has been installed in a vehicle by a Holden Dealer or Service Dealer before such vehicle has travelled a distance of 20,000 km from the date of installation, whichever first occurs.

This section is designed to assist you in understanding the I-GM Warranty provided with your new vehicle.

The following are some of the most frequently asked questions, for which detailed answers have been provided.

Q 1. How do I go about obtaining I-GM Warranty Service?

It is the responsibility of the *Selling* Dealer to provide I-GM Warranty service, therefore you should take your vehicle to the Selling Dealer whenever I-GM Warranty service is needed. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of this handbook will be required by the Dealer.

Q 2. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the I-GM New Vehicle Warranty?

You should contact the nearest Authorised Holden Dealer or I-GM Customer Assistance as soon as possible, and arrange for that Dealer to carry out the required I-GM Warranty Service.

Q 3. What should I do if, in an emergency, I-GM Warranty service is required and an Authorised Holden Dealer is not available to provide such service at the time?

If, in an emergency, a repair, replacement or adjustment (covered by the I-GM New Vehicle Warranty) is required to enable your vehicle to be operated safely and it is *not* practical for you to go to an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your vehicle to be operated safely) may be performed by any other qualified mechanic or repairer. A claim for the reasonable cost may be made through the Authorised Holden Dealer who would normally provide you with I-GM Warranty Service. You must also take your vehicle to the Authorised Holden Dealer for inspection of the service and/or completion of any required I-GM Warranty Service, as soon as possible.

Note: During normal business hours you should seek authorisation from your nearest Authorised Holden Dealer or I-GM Customer Assistance, prior to repairs being commenced.

Q 4. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the I-GM Warranty?

No, these items are not covered. I-GM warranty only covers the repair, replacement or adjustment of those parts of your vehicle which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your vehicle, will be recognised under the I-GM New Vehicle Warranty.

The rights and remedies, which are available to you under any relevant Statutory Enactment (or otherwise by law) for any claim for compensation, you must pursue outside the ambit of the I-GM New Vehicle Warranty.

Q 5. Will I have to pay for maintenance costs during the Warranty Period?

Maintenance costs are not covered by the I-GM New Vehicle Warranty. However, the scheduled 5,000 km service specified in chapter 8 of the handbook is provided 'labour free'. Lubricants and parts used for this service will, however, be charged to the owner. This is provided that your vehicle has been operated under *normal* operating conditions (refer page 8-3) and also that no modification (other than a modification made by, or at the direction of, I-GM) has been made to your vehicle. The Maintenance Schedules in this handbook specify the *minimum* maintenance required for your vehicle operating under normal conditions.

The Maintenance items (except where they are required as a result of defects in materials or workmanship) for which you will have to pay for include:-

- Clutch facings
- Engine tune-up, including spark plugs replacement.
- Replacement of all filters.
- Cleaning or flushing of fuel, coolant, brake, engine, transmission, differential, power steering etc., after the 5,000 km service.
- Adding to (or replacing) lubricants.
- Adding to (or replacing) air conditioning refrigerant, after 5,000 km.
- Any necessary adjustments to drive belts, transmissions, clutch, park brake etc.
- Wheel balancing - after 5,000 km.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads - after the 5,000 km service.
- Brake lining wear or damage.
- Brake disc pad or disc wear.
- Battery re-charging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel adjustment - after the 5,000 km service.
- Door, or bonnet lock adjustments.
- Glass or channel adjustments - after the 5,000 km service.
- Body rattle, squeaks and general tightening of bolts, fastenings and fittings - after the 5,000 km service.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.

Q 6. Are my tyres covered by the I-GM New Vehicle Warranty?

No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer. Any Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

Q 7. Are I-GM parts and accessories covered by warranties?

If you buy an I-GM part or accessory from an Authorised Holden Dealer it will by warranted by that Dealer, under the I-GM parts and accessories Warranty, against defects in materials or workmanship for 12 months, from the date of purchase. In the case of an I-GM part or accessory which has been installed in a vehicle by a Holden Dealer, it will be warranted for 12 months or 20,000 km (whichever occurs first) from the date of installation.

Maintenance items such as filters, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal maintenance. Such replacements are not the subject of this warranty.

Q 8. Will I have to pay for any costs or expenses in connection with the provision of I-GM Warranty service?

All parts and labour used in carrying out I-GM Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever I-GM Warranty service is to be carried out by the Servicing Dealer it is your responsibility to deliver your vehicle to the Servicing Dealer's premises.

If, as a result of a defect which is covered by the I-GM New Vehicle Warranty, your vehicle cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required I-GM Warranty Service, I-GM will accept reasonable towing costs to move your vehicle to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and/or I-GM Customer Assistance (refer page 5-18) to obtain guidance.

Q 9. Would my vehicle's engine benefit from fuel additives, oil additives or coolant additives not marketed by I-GM?

The use of break-in oil, tune-up compounds, friction-reducing compounds and other supplemental additives are *not* recommended; their use will not only increase operating costs, but may also be detrimental to the operation of your vehicle.

ONE FEATURE EVERY CAR MAKER WOULD LOVE TO BE ABLE TO OFFER.

Holden, a lot more than just a car

As you'll soon discover, your new Holden is a lot more than just a car..... because every Holden comes with one very special feature, HoldenWise.

HoldenWise was created to offer Holden owners the best Australia wide service and parts system possible. To do this we've drawn on all the technical resources and service skills of I-GM. However, the key to our service is and always will be, people, with over 5,000 Holden service and parts specialists spread across the country. Thanks to them, we can offer HoldenWise Customer Protection at participating Holden Dealer service and parts centres, with complete confidence.

Holden Specialists

HoldenWise technicians have been specially trained by the factory and have the experience in service and parts skills necessary to work on your car. As you can imagine Holden's today's are a lot more sophisticated than they used to be, which means specialist service is essential.

Knowing Holden's so well, our technicians know exactly how long each service takes, which is why Holden dealers can offer fixed price servicing.

HoldenWise Fixed Price Servicing

HoldenWise has eliminated one of the big worries about car services, not knowing what the bill will be. Every participating Dealer service centre offers fixed price servicing. You need only ask and you'll be given a quote on how much the job will cost before it's started. So there are no nasty surprises when paying the bill.

Of course, if during the service, a problem is discovered, you'll be telephoned immediately before any more work is done.

You may be comforted to know that all participating Dealer work is covered by a workmanship warranty.

HoldenWise Workmanship Warranty

All services and repairs are covered by a 6 month/10,000 km Dealer warranty on workmanship. If a fault arises during that period, due to the service, your Holden Dealer will fix it. But workmanship isn't the only thing that is guaranteed.

HOLDENWISE
QUALITY SERVICE & PARTS
We guarantee our service workmanship for a period of 6 months or 10,000 kilometres.
GUARANTEE

HoldenWise 12 month/20,000 km Parts Warranty

The parts used in HoldenWise services are manufactured and tested to the same high standards as the originals, so Holden quality parts carry the same 12 month/20,000 km warranty. Naturally the warranty does not apply to normal maintenance parts like oil filters and spark plugs.

Whilst on the subject of parts, how often have you been told you'll have to wait a while until the parts can be found?

Thanks to the HoldenWise network, it's something you're unlikely to encounter at your Holden Dealer.

The HoldenWise Network

Most HoldenWise Dealer service and parts centres are computer linked through to the factory, which means you'll never have to wait an eternity for the right parts to be found.

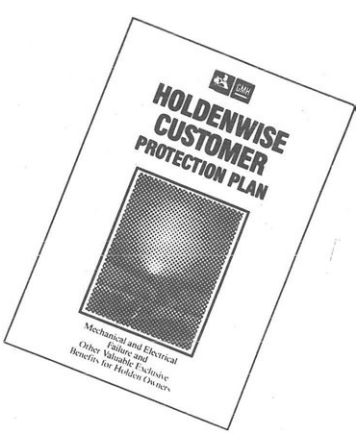
What's more, with around 370 Dealers nationwide, you'll never be far from the same high standard of service.

Most car makers would be more than happy to provide this level of customer protection, but at Holdens we think you deserve better. So we've developed the HoldenWise 4 year extended warranty plan.

HoldenWise extended warranty

For a relatively small price, you can extend the original 12 month/20,000 km warranty on your car for an additional one, two or three years.

This warranty covers all mechanical and electrical repairs including parts and labour. Plus the cost of car hire, should your car be immobilised for more than two days.


HOLDENWISE
CUSTOMER
PROTECTION PLAN
Mechanical and Electrical Failure and Other Valuable Exclusive Benefits for Holden Owners

As the extended warranty is transferable, it even increases the value of your car when the time comes to sell it.

As you can see with HoldenWise Customer Protection, your new Holden is a lot more than just a car. After all, you've got the guaranteed skills and service of over 5,000 dedicated Holden specialists, wherever you are in Australia.

Customer Assistance.

Finally, we suggest you read the item on page 5-18 of this handbook for information on I-GM Customer Assistance Service.

SYDNEY

ARNCLIFFE **Suttons Motors Arncliffe Pty Ltd** - 93 Princes Highway
ASHFIELD **Muirs Motors (Ashfield) Pty Ltd** - 252 Parramatta Road
BALGOWLAH **Mitchell Cox Holden** - 164 Condamine Street
BLACKTOWN **West City Holden** - 120~128 Sunnyholt Road
CABRAMATTA **John Abrahams Holden** - 266~284 Hume Highway
CAMPBELLTOWN **Paul Wakeling Holden** - Cnr Blaxland & Campbelltown Rds
CHULLORA **Suttons Motors (Chullora) Pty Ltd** - Cnr Hume Hwy & Waterloo Road
CROWS NEST **New Hunter Holden** - 446 Pacific Highway
DEE WHY **Peninsula Holden** - Cnr May & Mooramba Roads
GORDON **Sundell Holden** -Cnr 836 Pacific Hwy & McIntyre Street
HOMEBUSH **Suttons Motors Homebush Pty Ltd** - 112 Parramatta Road
HOMEBUSH **Gilbert & Roach Pty Ltd** - 167~173 Parramatta Road
KINGSFORD **John Pellegrini Holden** - 263~271 Anzac Parade
LAKEMBA **Michael Lyons Holden** - 817 Canterbury Road
LIVERPOOL **A.C. McGrath & Co Pty Ltd** - 411~419 Hume Highway
MIRANDA **Greg Ball Holden** - 1~3 Kiora Road
NEWPORT **Esso Car Care Centre (Mobil)** - 340 Barrenjoey Road
PADSTOW **Princeton Holden** - 19 Davies Road
PARRAMATTA **Boyded Parramatta** - 65 Church Street
PENNANT HILLS **Barry Smith Holden** - 351~355 Pennant Hills Road
PENRITH **Triway Holdings Pty Ltd** - 39~47 Henry Street
ROCKDALE **Peter Terry Holden** - 571 Princes Hwy
RYDE **Hunter Holden** - 603~605 Victoria Road
SPRINGWOOD **Springwood Holden** - 15 Ferguson Road
ST. MARY'S **John Young Holden** - Cnr Glossop & Harris Streets
WAITARA **Suttons Motors Waitara Pty Ltd** - 90 Pacific Hwy
WINDSOR **Hawkesbury Valley Holden** - 18 Macquarie Street

NEW SOUTH WALES, COUNTRY

ADELONG **Robert Broadhurst Holden** - Tumut Street
ALBURY **Brian White Holden** - 647~657 Dean Street
ARDLETHAN **Carr's Engineering** - 4 Mirrool Street
ARMIDALE **New State Motors** - 103 Rusden Street
BALLINA **Quayside Motors** - Pacific Highway
BARADINE **John Farrell & Co.** - Wellingon Street
BARHAM **Hall's Motors Pty Ltd** - 44 Noorong Street
BATHURST **Bathurst Motors Pty Ltd** - 54 Durham Street
BATLOW **Robert Broadhurst Holden** - Pioneer Street
BEGA **South Coast Holden** - 247 Carp Street
BELLINGEN **E.H.H. Raymond Pty Ltd** - Broadway
BELMONT **Challenge Holden** - 444 Pacific Highway
BLAYNEY **Mitchell Holden** - 98 Adelaide Street
BOMBALA **Delcott Engineering Pty Ltd** -Maybe Street

NEW SOUTH WALES, COUNTRY cont.

BOOROWA **Boowowa Auto Repairs** - 40 Marsden Street
BREWARRINA **Hertslet Holden** - Bathurst Street
BROKEN HILL **Donlee Motors Pty Ltd** - Cnr Galena & Rakow Streets
CANOWINDRA **Canowindra Motors** - Gaskill Street
CARDIFF **Brian Kelly Holden** 35~39 MacQuarie Road
CASINO **McKinnon Holden** - 142 Barker Street
CESSNOCK **Geoff Boyd Holden** - 173~175 Wollombi Road
COBAR **Cobar Motors Pty Ltd** - Barton Street
COFF'S HARBOUR **Geoff King Holden** Cnr Pacific Hwy & Thompson Rd
COOLAMON **Coolamon Motors** - Cowabbie Street
COOMA **Summit Holden** - 66~70 Sharp Street
COONABARABRAN **Alan McWhirter Holden** - John Street
COONAMBLE **Moody's Motors** - 37 Aberford Street
COOTAMUNDRA **Jenkins Garage** - 111 Wallendoon Street
COROWA **R.W.E. Fraser & Co Pty Ltd -** 218 Honour Avenue
COWRA **Waugoola Motors Pty Ltd** - Kendal Street
CROOKWELL **Crookwell Autos** -114 Goulburn Street
DENILIQUIN **Burchfield Bros & Co** -112~114 End Street
DORRIGO **Phil Noble Motors** - 46~48 Hickory Street
DUBBO **John Kierath** - 54 Bourke Street
EDEN **Ron Doyle** -113 Imlay Street
FINLEY **Riverina Garage Finley** -104 Murray Street
FORBES **Paddison & Co** - Cnr Rankin St & Court Lane
GILGANDRA **Allan Cooper Holden** - 106 Warren Road
GLEN INNES **Glen Severn Holden** - 167 Grey Street
GLOUCESTER **Grahame's Garage Pty Ltd** -1 Park Street
GOSFORD **Noble Holden** - Pacific Highway
GOULBURN **Geissler Motors** - 279~298 Auburn Street
GRAFTON **Ken Casson Holden -** 71~ 75 Spring Street
GRENFELL **Terry Carroll Motors Pty Ltd** - 40 Alexandra Street
GRIFFITH **Leo Franco Holden** -152 Yambil Street
GUNDAGAI **McPherson Motors Pty Ltd** - Sheridan Street
GUNNEDAH **Namoi Valley Motors** - 48 Barber Street
GUNNING **Bailey's Garage Pty Ltd** - Yass Street
GUYRA **Burgess Garage Pty Ltd** - 131~143 Bradley Street
HARDEN **Ginty & O'Leary** - Cnr Station & Albury Streets
HAY **Royce Curtis Motors** - 168 Lachlan Street
HOLBROOK **Lieschke Motors Pty Ltd** - Albury Street
INVERELL **Gaukroger Sales Pty Ltd** - Vivian Street
JERILDERIE **Jerilderie Motors** - Jerilderie Street
KANDOS **Chrisfield Holden** - 11 Angus Street
KATOOMBA **Arthur Brown Holden** - 136 Great Western Hwy
KEMPSEY **Thoroughgood Motors** - 118~132 Belgrave Street
KIAMA **Glen Fulton Holden** - 35~41 Collins Street
KYOGLE **O & A Holden -** 128~134 Summerland Way
LEETON **John Ryan Holden** - 47 Pine Street
LISMORE **John Chant Motors Pty Ltd** - 21~27 Carrington Street
MACKSVILLE **Eastland Auto Centre** - 18~22 Cooper Street
MACLEAN **O'Halloran Motors** - 175 River Street
MAITLAND **Heritage Holden** - 557~567 High Street
MOREE **Keith Haddad Holden** - Cnr Boston & Heber Streets
MORUYA **Surfair Holden** - 88 Vulcan Street

NEW SOUTH WALES, COUNTRY cont.

MOSS VALE **Vagg & Partners Holden -** 160 -162 Argyle Street
MULLUMBIMBY **Tony Carsburg Holden** - 2 Argyle Street
MUDGEE **Ross Granata Motors** - 47~55 Market Street
MURWILLUMBAH **John Giddings Holden** - 29 Prospero Street
MUSWELLBROOK **Upper Hunter Motors Pty Ltd** - 116 Bridge Street
NARRABRI **Allan Cooper Holden** - 181 Maitland Street
NARRANDERA **C. & S. Coelli** - 6 Boundary Road
NARROMINE **L.E. Stanley Pty Ltd** - Dandaloo Street
NEWCASTLE **Young & Green Pty Ltd -** 745 Hunter Street
NOWRA **Glendon Motors Holden** - 301~313 Princes Highway
ORANGE **Canobolas Holden** - 348 Summer Street
PARKES **Go Motors of Parkes** - Cnr Mitchell & Clarinda Streets
PEAK HILL **S.Leary & Sons Pty Ltd** - Mingelo Street
PORT MACQUARIE **Todd Holden -** 16~20 Clarence Street
QUIRINDI **Browning Motors** - 82 Henry Street
SCONE **Upper Hunter Motors (Scone)** - 91 Kelly Street
SINGLETON **Lancaster Holden** - 80 John Street
TAMWORTH **Kensells Holden** - Cnr Bourke St & Kable Ave
TAREE **Hardes Auto House -** 61 Manning Street
TEMORA **Rod Lovering Holden** - 2 Stockinbingal Road
TENTERFIELD **Sexton & Green (Sales & Service) Pty Ltd** -148 Rouse Street
TORONTO **Young & Green (Toronto) Pty Ltd** - Carey Street
TUMBARUMBA **Broadhurst Autos** - Albury Street
TUMUT **Nancarrow Holden** - 35 Fitzroy Street
ULLADULLA **Johnston Holden** - 150 Princes Highway
TWEED HEADS **Tweed Motors Pty Ltd** - 75~79 Pacific Highway
VALLEY HEIGHTS **Kerrys Motors Pty Ltd** - 28 Great Western Highway
WAGGA **Wagga Motors Pty Ltd** - 32 Dobney Avenue
WALCHA **Bowden's Garage Pty Ltd -** Derby Street
WALGETT **Walgett Garage Pty Ltd** - Wee Waa Street
WALLA WALLA **D.E. Lieschke & Son Pty Ltd** - Commercial Street
WARIALDA **Roger Moore** - Hope Street
WARILLA **Wilson's Warilla Pty Ltd** - 29 Shellharbour Road
WARREN **Fuller Bros** - Dubbo Street
WELLINGTON **Gersbach's Garage Pty Ltd** - 92 Lee Street
WEST WYALONG **West Wyalong Motors** - 183 Main Street
WOLLONGONG **Dwyers Pty Ltd** - 31~33 Crown Street
WYONG **W.M. Holden** - Pacific Highway
YASS **Bill Nesbitt Holden** - 221 Comur Street
YOUNG **Harden & Geelan Holden** - 48 Boorowa Street

A.C.T.

BELCONNEN **Gerald Slaven Holden** - Josephson Street
BRADDON **Beazley & Bruce** - 44 Mort Street
PHILLIP **Commonwealth Motors Pty Ltd** - 158 Melrose Drive

MELBOURNE, GEELONG

BERWICK **Barry Bourke Holden** - 755 Princes Highway
BUNDOORA **Watson Holden** - 413 Grimshaw Street
BURWOOD **Penfold Holden** - 63 Burwood Road
CAULFIELD **Booran Holden** - 1049 Glenhuntly Road
CHELSEA **Harrison Holden** - 370 Nepean Highway
CHELTENHAM **Allwell Holden** - 1212 Nepean Highway
DANDENONG **Graeme Blanchard Holden** - Princes Highway
ELSTERNWICK **Reg Hunt Holden** - 77 Nepean Highway
ESSENDON **Preston Motors (Essendon) Pty Ltd** - 205~211 Keilor Road
FAWKNER **Mantello Holden** - 1263 Sydney Road
FERNTREE GULLY **Neilson Holden F.T.G.** - 980 Burwood Highway
FOOTSCRAY **Alan Mance Holden** - 435 Barkly Street
FRANKSTON **Noel Gould Holden** - 140 Dandenong Road
GEELONG **R & B Smith Holden** - 510 Moorabool Street
GEELONG **Winter & Taylor (Sales) Pty Ltd** - 23 Cavendish Street
GLEN WAVERLEY **Geoff Brady Holden** - 565~577 Springvale Road
HASTINGS **Westernport Holden** - 843 Frankston~Flinders Road
LILYDALE **Noel Dight Holden** - 344 Main Street
MORNINGTON **John Collins Holden** - 976 Nepean Highway
OAKLEIGH **Garry & Warren Smith** - 1575 Dandenong Road
PRESTON **Ralph D'Silva Holden** - 573-603 High Street
RINGWOOD **Patterson Cheney Holden** - 45~57 Maroondah Highway
SOUTH MELBOURNE **Patterson Cheney Holden** - 132 Sturt Street
SUNSHINE **Kevin Dennis Holden** - 272 Ballarat Road
WERRIBEE **Ballan Holden** - Princes Highway
WEST MELBOURNE **Reg Hunt Holden** - 577 King Street

VICTORIA, COUNTRY

ALEXANDRA **Alexandra Tyre & Hire** - 79 Grant Street
ARARAT **David Reid Motors** - High Street
BAIRNSDALE **The Big Garage** - 199 Main Street
BALLARAT **Peter Amor Motors** - 2~26 Mair Street
BENALLA **Arnott's Motors** - 88~90 Bridge Street
BENDIGO **Ron Poyser Holden -** Cnr High & Myrtle Streets
BIRCHIP **R.L. & C.J. Bales** - 38 Cumming Avenue
BOORT **Jaron Motors** - 55 Godfrey Street
CASTERTON **Coxons Autos** - 139 Henty Street
CASTLEMAINE **Terry Scully Motors** - Barker Street
CHARLTON **K.V. Charlton** - 70 High Street
COBRAM **Neville Mustica Motors** - Murray Valley Hwy
COHUNA **Humphrey Motors Pty Ltd -** 13~15 Market Street
COLAC **Parker Bros Motors Co** - 224 Murray Street
CORRYONG **Boers Motors** - 88~90 Hanson Street
DAYLESFORD **K.R. Little Pty Ltd** - Vincent Street
DIMBOOLA **Westerfield Motors Pty Ltd** - 64 Lloyd Street
DONALD **O.A. Shilton & Sons Pty Ltd** - Wood Street
ECHUCA **Echuca Motors** - 148 Murray Valley Highway
EUROA **Croxford Holden** - 41 Clifton Street
FOSTER **Ray Dower Motors** - 78 Main Street

VICTORIA, COUNTRY cont.

HAMILTON **Peter Sandow Motors Pty Ltd** -261 Gray Street
HOPETOUN **Hopetoun Motors** - 78 Lascelles Street
KANIVA **Kaniva Motors -** 82 Commercial Street
KOOWEERUP **Gray Blakey Holden** - Station Street
KORUMBURRA **Peter Dunlevie Holden** - 42 Commercial Street
KYABRAM **D'Alberto Holden** - 60 McEwen Road
KYNETON **Mollison Motors Pty Ltd** - 167 Mollison Street
LEONGATHA **Gleeson Holden** - 37~43 Bair Street
MAFFRA **Knight Paterson Holden** - Johnson Street
MANSFIELD **Christopher & Kirley Automotive Services** - Early Street
MARYBOROUGH **Graham Jacka Holden** - 35 Nolan Street
MILDURA **Stuart & Harrison (Sales) Pty Ltd** - 24~32 Deakin Avenue
MIRBOO NORTH **Ridgeway Motors** - 106 Ridgeway Road
MORTLAKE **W. Christian (Mortlake) Pty Ltd** - 107 Dunlop Street
MURRAYVILLE **Peers Motors** - McKenzie Street
NATHALIA **BHB Motors** - 6 Blake Street
NHILL **Ivan Morrow Motors Pty Ltd** - 71~73 Nelson Street
NULLAWIL **Nullawil Motors & General Engineers** - Calder Highway
ORBOST **Merlin Motors** - Stanley Street
PORTLAND **Reynolds Holden** - Henty Highway
QUAMBATOOK **Quambatook Auto Services** - 32 Gutherie Street
ROCHESTER **Bruce Hocking Motors Pty Ltd** - 71 Moore Street
RUTHERGLEN **Jasper Bros Pty Ltd** - Main Street
SALE **Keith Boyd Holden** - 273 York Street
SEA LAKE **Paddy Smith Holden** - Calder Highway
SEYMOUR **Neil Beer Holden** - 49 Emily Street
SHEPPARTON **Parker Bros Auto Co** - Melbourne Road
STAWELL **Tonkin Motors** - 71~73 Main Street
ST. ARNAUD **Maurie McGrath Motors** - 126 Napier Street
TALLANGATTA **Crispin Motors** - 21 Towong Street
TIMBOON **Timboon Motors** - Bailey Street
TRARALGON **Colin Watson Holden** - Princes Highway
UNDERBOOL **A.J. Gloster & Sons -** Cotter Street
WANGARATTA **Alan Capp (New Cars) Pty Ltd** - Tone Road
WARBURTON **Col McKenzie Holden** - Main Street
WARRACKNABEAL **Amor Motors Aubrey Truck Sales** - 33 Woolcock Street
WARRAGUL **Vin Rowe Holden** - 3 Endeavour Street
WARRNAMBOOL **Callaghan Motors Pty Ltd** - 133~137 Fairy Street
WONTHAGGI **J.P. Holden** - 2 Murray Street
YARRAM **Graham Helleren Motors Pty Ltd** - Bland Street
YARRAWONGA **Pigdons Pty Ltd** - Belmore Street

TASMANIA

BURNIE **Motors Burnie** - 84~89 Marine Terrace
DEVONPORT **Motors Devonport** - Victoria Parade
HOBART **Motors Pty Ltd** - 179 MacQuarie Street
KING ISLAND **King Island Motors Pty Ltd** - Netherby Road, Currie
LAUNCESTON **Motors Launceston** - Elizabeth Street
SMITHTON **Motors Pty Ltd** - 116 Nelson Road
ULVERSTONE **Motors Pty Ltd** - 99 Reibey Street

BRISBANE

ALBION **Bill Harrison Car Sales** - Frodsham Street & Crosby Road
ASPLEY **Zupps (Aspley)** -1442 Gympie Road
BOOVAL **Zupps Holden** - 246 Brisbane Road
CAPALABA **Oldfield Holden** - 103 Redland Bay Road
MOOROOKA **John Sivyer Holden** - 1060 Ipswich Road
MT. GRAVATT **Zupps Motors Pty Ltd** - 1310 Logan Road
NEWSTEAD **Eagers Retail Pty Ltd** - 95 Breakfast Creek Road
NUNDAH **Eagers (Northside)** - 1319 Sandgate Road
PETRIE **North Pine Motors** - Gympie Road
REDCLIFFE **Village Holden** - 425 Elizabeth Avenue
SPRINGWOOD **Motorama Holden** - Cnr Pacific Highway & Brennan Street
WINDSOR **Leach Holden** - 143 Newmarket Road
WOOLLOONGABBA **Armstrong Holden** - 73 Ipswich Road
WYNNUM **Doug Barton Holden** - 200 Tingal Road

QUEENSLAND, COUNTRY

ATHERTON **Redding Motors Pty Ltd** - 2 Cook Street
AYR **Honeycombes Sales & Service** - 213~217 Queen Street
BEAUDESERT **Lawson Holden** - 57 Brisbane Street
BILOELA **Richard Cooley Holden** - Dawson Highway
BOWEN **McDermott Holden** - 98 Herbert Street
BUNDABERG **Ross Gray Holden** - Takalvan Street
CABOOLTURE **Becham Holden** - Bribie Island Road
CAIRNS **Ireland Holden** - 227~233 Mulgrave Road
CALOUNDRA **Drinnan Holden** - Caloundra Road
CHARLEVILLE **Alan Dobbin Holden** - 129 Alfred Street
CHARTERS TOWERS **Peters Holden** - 57 Mosman Street
CHINCHILLA **Ainsworth Motors & Machinery Pty Ltd** - 55 Chinchilla Street
CLONCURRY **Cloncurry Motors** - 59 Scarr Street
CROWS NEST **Dennis Nissen Motors** - 14 William Street
DALBY **Johnson's Holden** - 36 Drayton Street
EMERALD **Leahy Motors** - Clermont Street
GATTON **Gatton Auto Centre** - 67 Railway Street
GLADSTONE **Andersons Auto City -** 56 Yaroon Street
GYMPIE **Madills** - 35 Mellor Street
INGHAM **Origiasso Motors** - 99 Lannercost Street
INNISFAIL **I.C. Taylor Pty Ltd** - 117 Edith Street
JULIA CREEK **Julia Creek Motors Pty Ltd** - Burke Street
KILCOY **Hobart's Garage** - 58 Mary Street
KINGAROY **John Dundas Pty Ltd** - 38 King Street
LAIDLEY **Buhse's Garage Pty Ltd** - 5 Spicer Street

QUEENSLAND, COUNTRY cont.

LONGREACH **Longreach Motors** - 33 Swan Street
MACKAY **Pioneer Holden** - Cnr Gordon & Wellington Streets
MAROOCHYDORE **Sunco Holden** - Wises Road
MARYBOROUGH **Whitaker Holden** - 109~111 March Street
MOUNT ISA **Barkly Motors Pty Ltd** - Marian Street
MURGON **Clifton Motors** - McAllister Street
NAMBOUR **Kallenbach Motors** - 139 Howard Street
NANANGO **Nanango Motors Pty Ltd** - 72~74 Drayton Street
NOOSA HEADS **Gilbert Motors Pty Ltd** - Cnr Cooroy Noosa Rd & Coral Tree
PROSERPINE **Crossley Car Whitsunday Pty Ltd** - 162~164 Main Street
QUILPIE **Quality Motors** - Boonkai Street
ROCKHAMPTON **Lawrence's** - 327 Richardson Road
ROMA **Maranoa Multi Agencies** - Bowen Street
SOUTHPORT **Lockhart Holden** - Cnr Nerang Road & Olsen Avenue
SPRINGSURE **Springsure Motors** - Eclipse Street
ST. GEORGE **Halpin Motors** - 39~41 Grey Street
STANTHORPE **Central Motors** - 42 Maryland Street
TOOWOOMBA **Eagers Retail Pty Ltd** - Cnr James & Hume Streets
TOWNSVILLE **Tony Ireland Holden** - 87~91 Charters Towers Road
TULLY **Island Coast Holden** - 12 Richardson Street
WARWICK **Deighton Motors Pty Ltd** - Grafton Street
WINTON **Gillespie Motor Dealers Pty Ltd** - Elderslie Street

NORTHERN TERRITORY

ALICE SPRINGS **Kittle Bros (Alice Springs) Pty Ltd** - Cnr Wills & Railway Terrace
DARWIN **Kerry Holden** - 21~25 Stuart Highway
KATHERINE **Master Motors** - 1130 Victoria Highway

ADELAIDE

ADELAIDE **City Holden** - 203~221 Grenfell Street
ELIZABETH **Peter Page Holden** - Elizabeth Way
MALVERN **Claridge Holden** - 361~367 Unley Road
PORT ADELAIDE **Smiths of Port Adelaide** - 271 Commercial Road
REYNELLA **Southgate Holden** - 49~59 Main South Road
SOMERTON PARK **Ellers Holden** - 278 Brighton Road
THEBARTON **United Holden** - 1 Port Road
VALLEY VIEW **Plaza Holden** - 817~839 North East Road

SOUTH AUSTRALIA, COUNTRY

BALAKLAVA **Balaklava Motors** - 4 Wallace Street
BERRI **Rosenthal Bros Pty Ltd** - Vaughan Terrace
CEDUNA **Beck Motors Pty Ltd** - Poynton Street
CLARE **Brian Holmes Holden** - 7 Old North Road
CLEVE **Herbert Motors Pty Ltd** - Main Street
CRYSTAL BROOK **Newitt's** - 26 Brandis Street
CUMMINS **Trigg & Wedd** - 3 Umlauf Street
GAWLER **Steinhage Holden** - Cnr Murray & Bridge Sts
KADINA **J.H. Rosewarne Pty Ltd** - Graves Street
KEITH **Farmers Centre** - McBain Street
KINGSCOTE **Roberts Motors** - Telegraph Road
KINGSTON **Lecornu's Service Garage** - Agnes Street
LOXTON **Flight Motors Pty Ltd** - Bookpurnong Terrace
MAITLAND **Maitland Motors Pty Ltd** - 58 Robert Street
MALLALA **Curnow's Garage Pty Ltd** - Balaklava Road
MENINGIE **Peter Hood Holden** - Cnr Princes Highway & Coonalpyn Road
MILLICENT **Dennis Cowling Holden** - 98 George Street
MT. BARKER **Gilbert Motors (Mt. Barker) Pty Ltd** - 57 Adelaide Road
MT. GAMBIER **O.G. Roberts & Co** - Jubilee Highway West
MURRAY BRIDGE **Dutton Motors Pty Ltd** - 7 Adelaide Road
NARACOORTE **Kingcraig Motors Pty Ltd** - 158~164 Smith Street
PORT AUGUSTA **Ken Feltus Holden** - 38 Stirling Road
PORT LINCOLN **City Motors** - King Street
PORT PIRIE **Spencer Holden** - 50 Ellen Street
RENMARK **Rosenthal Motors Pty Ltd** - Ral Ral Avenue
STRATHALBYN **Gilbert Motors (Strathalbyn) Pty Ltd** - High Street
TANUNDA **E.H. Hage & Co Pty Ltd** - 50 Murray Street
VICTOR HARBOR **Southern Holden** - 5 Victoria Street
WAIKERIE **Riverside Holden** - 6 Crush Terrace
WHYALLA **Mitchell Holden** - 64 Essington Lewis Avenue
YANKALILLA **Martin Motors Pty Ltd** - Main Street
YORKETOWN **Southway Holden** - 7 Minalaton Road

PERTH

CANNINGTON **Brian Gardner Holden** - 1308 Albany Hwy
FREMANTLE **Shacks Holden** - 64 Queen Victoria Street
GOSNELLS **Lance Gibbons Holden** - 2325 Albany Highway
MELVILLE **Melville Motors Pty Ltd** - 532~536 Canning Highway
MIDLAND **Goldy Holden** - 161 Great Eastern Highway
MORLEY **Metro Motors Pty Ltd** - 212 Walter Road
NAVAL BASE **Shacks Cockburn** - 15 Rockingham Road
OSBORNE PARK **North City Holden** - Cnr Scarborough Beach Rd & Harborne St
PERTH **City Motors** - 505 Newcastle Street
VICTORIA PARK **Young's Holden** - 529 Albany Highway
WANNEROO **Phoenix Holden** - 5 Berriman Drive

WESTERN AUSTRALIA, COUNTRY

ALBANY **Manley Stanwell Holden** - 92~98 Earl Street
BRIDGETOWN **Kordics Bridgetown** - Hampton Street
BROOKTON **Coote Motors** - Robinson Road
BROOME **Norwest Holden -** McPherson Street
BUNBURY **Wallace Holden** - 72 Spencer Street
BUSSELTON **Fennessy Holden** - 2~4 Bussell Hwy
CARNAMAH **T & H Walton Stores Pty Ltd** - Robertson Street
CARNARVON **North West Autos** - 175 Robinson Street
COLLIE **Station Motors** - 102 Throssell Street
CORRIGIN **Farmpower** - Kunjin Road
CRANBROOK **Cranbrook Motors** - 11~13 Gathorne Street
DALWALLINU **Reid & Inglis** - Johnson Street
ESPERANCE **Dempster Holden** - Norseman Road
GERALDTON **Youngs Motors** - Cathedral Avenue
GNOWANGERUP **G.S. Hendry & Co Pty Ltd -** Yougenup Street
KALGOORLIE **Kyle Motors -** 114 Boulder Road
KARRATHA **Moxham Holden**- Lot 1952 Balmoral Road
KATANNING **Edwards Holden** - 159 Clive Street
KELLERBERRIN **Dowding Motors** - 1 Mitchell Street
KUNUNURRA **Elgee Automotive & Diesel Services** - Mango Street
MANJIMUP **Kordics** - Rose Street
MERREDIN **Carson's of Merredin** - 112 Barrack Street
MOORA **Frank Lewis Holden** - Gardiner Street
NAREMBEEN **W.J. Nichols (1979) Pty Ltd** - 20 Churchill Street
NORTHAM **Withnell Motors** - 58 Fitzgerald Street
PORT HEDLAND **Leete Motors** - 26~28 Anderson Street
WAGIN **Marley White & Co** - Tudor Street
WONGAN HILLS **Agro Machinery Pty Ltd** - Fenton Street
WYALKATCHEM **J.S. Rimmer & Sons** - Railway Terrace

We want you to be happy with your new vehicle, together with the people you deal with while you have the vehicle.

Normally, any problems with the sales, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service Department.

We realize however, that, with the best intentions, misunderstandings do occur sometimes.

Therefore, we suggest you discuss any concern with one of the Dealer's management people. If you haven't received satisfaction from the Sales Manager or Service Manager - go to the General Manager or to the Dealer himself.

By now you should have satisfaction. If not, the I-GM Customer Assistance office is at your disposal.

The I-GM Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is 647 1016. Outside the Melbourne Metropolitan area, the number is 008 032 608.

If your concern relates to parts/accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden's Service Parts Operations on (03) 797 7341

Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write the address is:

The Manager

I-GM Customer Assistance Services

PO Box 107

Port Melbourne, 3207.

Your letter should clearly outline your concern or query, and include the following:

- Your name and address
- Telephone numbers, both private & Business
- Servicing Dealership's name and address
- Vehicle model
- Vehicle identification number (I.S.O.V.I.N.)
- Date of purchase
- Current odometer reading

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of this handbook.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

Chapter 6

Weekly Checks & Cleaning

Page

6-2 Check locations
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6-15 Battery
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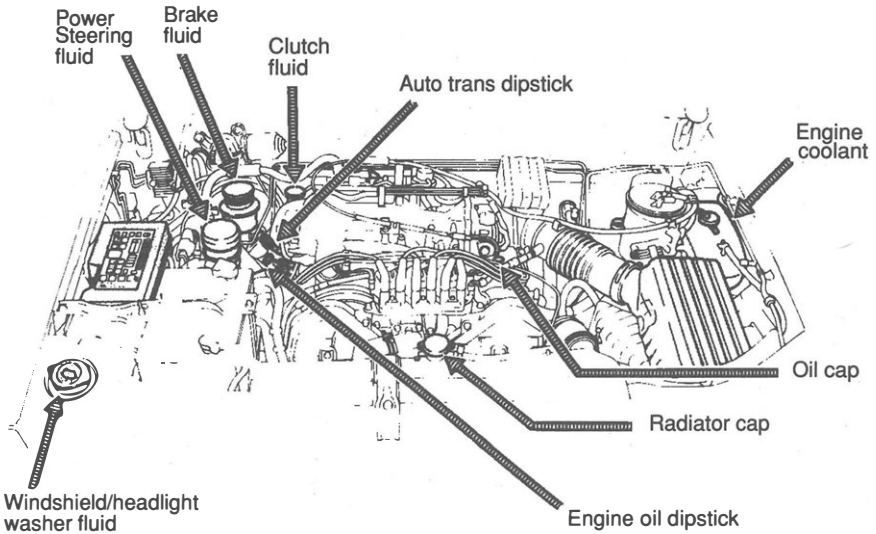
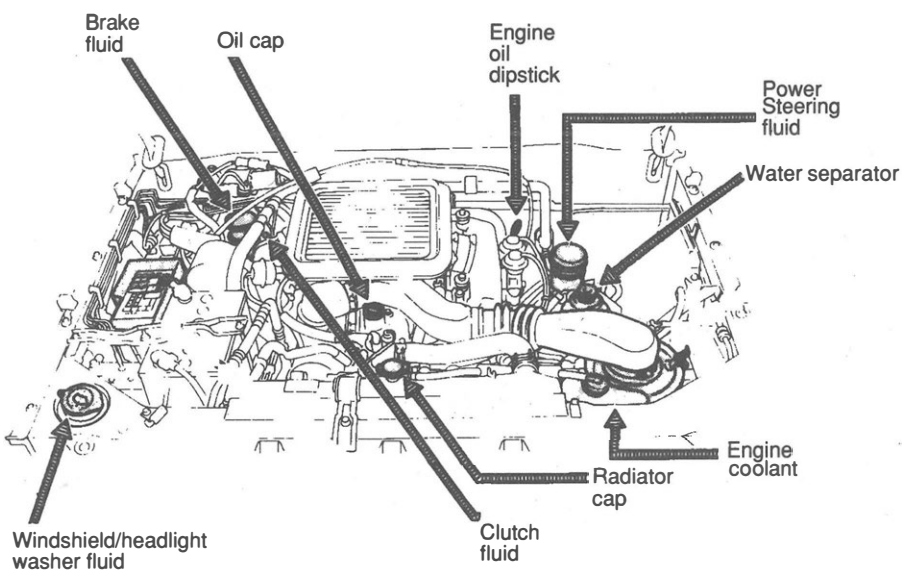
PETROL ENGINE





DIESEL ENGINE

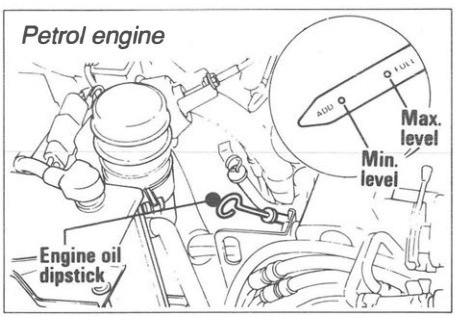
It is the owner's responsibility to check the oil level weekly. The best time to check the engine oil level is when the oil is warm, such as during a fuel stop.

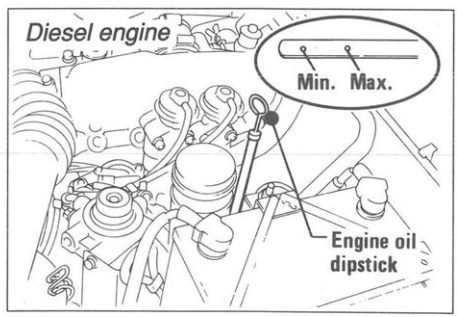
To check the oil level accurately, the vehicle must be on level ground. After turning off the engine, wait a few minutes for the oil to settle.

The level is checked from the dipstick which is located on the driver's side of petrol engines and on the passenger's side of diesel engines.

Remove the dipstick and wipe it clean with a clean cloth or paper. Insert the dipstick firmly all the way down, pause for a second then withdraw the dipstick and look at the oil level on it.

The oil level should be maintained between the two marks, neither going above the maximum mark nor under the minimum mark. Remember to reinsert the dipstick firmly after taking the reading.





If you need to add oil use viscosity grade 20W/40 (or 20W/50 in high temperature areas). For prolonged use In snow areas, use of 15W/40 (SF or SG) is recommended.

- ★ Petrol engines use SF (or SG) grade engine oil.
- ★ Diesel engines use CD or CE grade engine oil SAE30.

If you need to add oil, remove the oil cap on top of the engine. Pour the required oil into the opening. Wait a few minutes for the oil to settle. Then check the oil level with the dipstick again. If still too low, add more oil. When correct, replace the cap and the dipstick.

If you check the oil level when the oil is cold do not run the engine first. The cold oil will not drain back into the oil pan fast enough to give a true oil level reading.

NOTE: Non-detergent, recycled, reclaimed and other low quality oils are specifically not recommended. The use of break-in oils, tune-up compounds, friction-reducing compounds and other supplemental additives are not recommended; their use will only increase operating costs.

Every internal combustion engine uses a certain amount of oil, especially during the running-in period. Your engine is dependant on oil to lubricate the cylinder walls, pistons, rings and valve stems. A thin film of oil is left on the cylinder walls, some of which is carried into the combustion chamber and burnt during the combustion process. This also applies to the film of oil on the valve stems which is drawn into the combustion chamber and burnt.

There are several other factors that contribute to the rate of oil consumption in your engine, apart from mechanical malfunctions such as worn pistons, rings, valve stems and guides. These factors are: the way in which the vehicle is operated, the quality and grade of oil, the oil level, and dilution of the oil.

★ OPERATION OF THE VEHICLE

Sustained high engine speeds will increase oil consumption because higher speeds increase engine temperature which lowers oil viscosity thus allowing more oil to reach the combustion chamber. Towing a heavy load will also result in increased oil consumption due to increased engine temperature and hence lower oil viscosity.

★ QUALITY AND GRADE OF OIL

Oil viscosity is a significant factor in oil consumption, therefore if you use an oil which is too "thin" (low viscosity) your oil consumption will increase. Use only the recommended grades of oil.

★ OIL LEVEL

Maintaining a proper oil level is also an important factor in controlling oil consumption. An over full crankcase allows the reciprocating parts of an engine to splash oil onto the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chamber and burnt, or may result in aeration of oil in the sump causing damage to the engine.

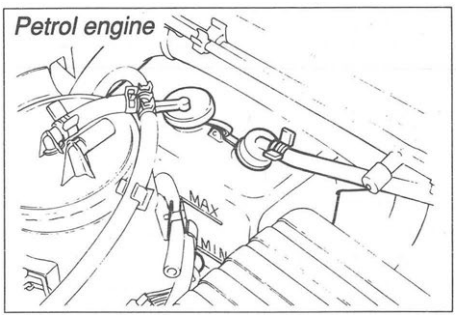
★ DILUTION

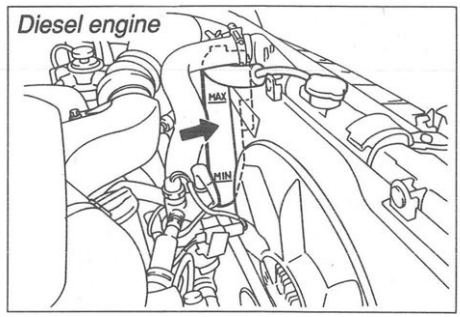
Probably the most prevalent complaint of oil consumption comes from the motorist whose vehicle is frequently driven at below normal operating temperatures. The oil becomes diluted by fuel and moisture which settles in the oil pan and may even raise the oil level creating a false reading on the oil level dipstick. For example, in a vehicle that has accumulated 1,500 km of short distance or intermittent city operation and has consumed a normal amount of oil, the level may not have dropped from the FULL mark, due to dilution. If this vehicle is driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil "lost" has been consumed in the highway operation.

If, after taking into account the above factors you are still concerned that your engine has excessive oil consumption then you should discuss the situation with a Holden Dealer. Remember that an engine's oil consumption should not be judged until it has run at least 7,000 km.

The level of coolant should be checked at least weekly. This is simply a matter of looking at the level in the coolant reservoir This is located next to the passenger's side headlamp.

When the engine is cold, the coolant level should be at or above the minimum mark on the container. After the vehicle has been driven and the engine is at normal operating temperature, the level should be somewhere between half full and the maximum mark on the container. DO NOT OVERFILL.





The LONG LIFE COOLANT in your vehicle conforms to specification number HN 2043. This can be purchased as: M40236 (1 litre) M40307 (5 litres) M40238 (20 litres)

If the container requires topping up, first premix a solution of 50% LONG LIFE COOLANT and 50% water. Flip up the cap on the top of the container, add the premixed solution and secure the cap.

Failure to use the specific Holden's coolant or maintain the specified concentration may result in voiding your warranty.

In emergency situations, plain water may be used temporarily in the cooling system until the correct Holden's LONG LIFE COOLANT is obtained as soon as possible from the nearest Holden Dealer.

It should be noted that the specified LONG LIFE COOLANT contains special corrosion inhibitors for the best corrosion protection of your engine and cooling system. This LONG LIFE COOLANT also gives your cooling system greater hot weather protection by increasing the boiling point and in addition provides protection in cold weather conditions down to -20° C, provided the correct concentration is maintained.

If the recommended brand of coolant/anti-freeze fluid is not available, the radiator and cylinder case MUST be drained before parking in regions where temperatures of 0°C or below are encountered. This is to prevent possible bursting of the radiator, or cracking of the cylinder block, which can occur if the coolant freezes. Even so, damage to the heater core may still occur. Therefore, the use of the correct anti-freeze/coolant is recommended.

If you regularly have to top up the container you should see your Holden Dealer for a cooling system check.

CAUTION: Corrosion inhibitors and anti-freeze fluids are poisonous. Use extreme care when handling. If swallowed seek medical attention.

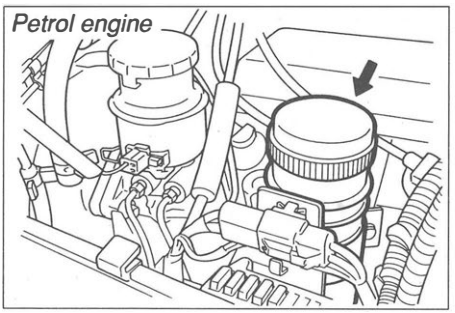
Refer to page 4-6 if engine overheats.

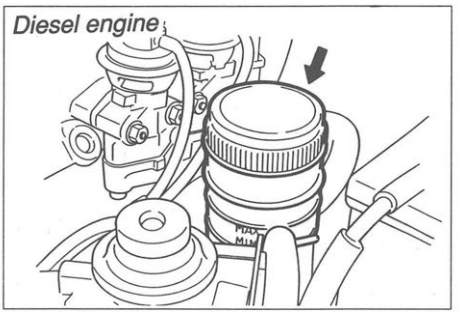
POWER STEERING

The level of fluid in the power steering reservoir should be checked weekly.

The best time to check is after the vehicle has been driven for a while, so that the fluid is warm. A convenient time to do this is at a fuel stop.

The level should be maintained between the level markings on the outside of the reservoir, refer page 6-2 for location.



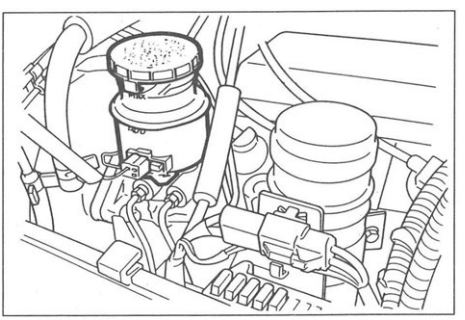


If fluid needs to be added, use DEXRON®11D or 11E. Do not fill over the maximum level and remember to replace the cap tightly. If you often need to add fluid, you should see your Holden Dealer to have the power steering system checked.

BRAKE FLUID

The brake fluid level in the master cylinder should be checked regularly in conjunction with checking the oil and coolant levels. The fluid level, visible through the "see through" master cylinder should be maintained between the level markings on the master cylinder. If the fluid is between these levels do not remove the master cylinder cap. Remember that brake fluid exposed to the atmosphere will quickly absorb moisture which in turn lowers the boiling point of the fluid as well as increasing the risk of corrosion of brake components.

If fluid needs to be added, unscrew and lift off the top cover. Top up with DOT-3 brake fluid. Ensure that the diaphragm inside the cap is in shape before securing the cap.



Take care when handling brake fluid. Flush with lots of water is spilt on skin or your vehicle. If it gets in your eyes, flush with lots of water and see a doctor as soon as possible.

NOTE: Use only new brake fluid. Use of an old, used or inferior brake fluid may endanger the functioning of the brake system.

If the master cylinder requires constant topping up it could indicate that a malfunction exists in which case it should immediately be brought to the attention of your Holden Dealer. A gradual drop in fluid level usually occurs over a long period as the brake pads and linings wear out. This is normal. *The brake fluid must be replaced every 2 years.*

NOTE: Damage to the washer motor may result if a washer button is held depressed when the washer tank is empty. Front and rear washer tanks should be frequently checked and topped up. The more often washer water is used (as in bad weather) the more often the level should be checked.

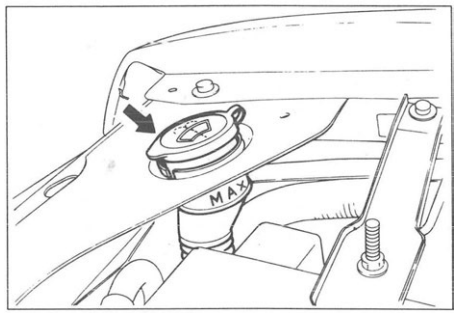
WINDSHIELD/HEADLIGHT WASHER CONTAINER

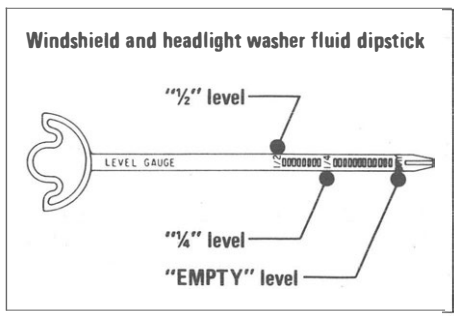
To check the level, flip up the cap and pull out the dipstick. Wipe it clean and push it all the way back down. Then pull the dipstick back out again and, holding the dipstick horizontal, look at the fluid level.

The level should never read below the empty mark. Add fluid to bring the level to the MAX mark on the outside of the container.

The container should be filled only with plain water or Optikleen (part no. M37068). Do not use ordinary soap or detergent as these not only froth up but will also damage the wiper rubbers.

Make sure the cap is secured.



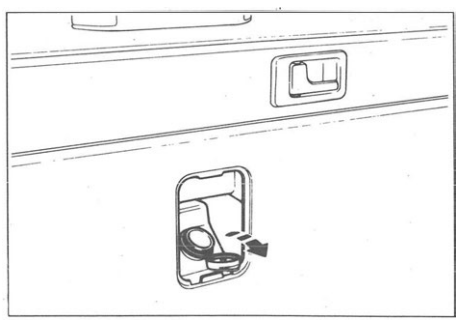


Windshield and headlight washer fluid dipstick

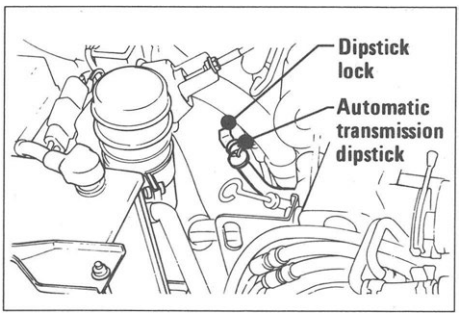
REAR WINDOW WASHER CONTAINER (if fitted)

The washer container is installed inside a panel in the tailgate.

The container should be filled only with plain water or Optikleen.

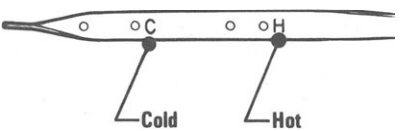


AUTOMATIC



If your vehicle is fitted with an automatic transmission, the level should be checked weekly, by looking at the fluid level on the dipstick. Refer to the diagram on page 6-2 for location. Dirt in the transmission can cause breakdowns, so be careful when checking or adding fluid.

The fluid should be checked after the vehicle has been driven for at least 24 km, so that the fluid is warm. It should not be checked after you have driven for a prolonged period of time or have driven in city traffic in hot weather, wait until the fluid cools down (at least 30 mins) before checking the fluid level. Otherwise, the reading may be incorrect.



The vehicle must be standing on level ground with the engine running. With your foot on the brake pedal, move the T-bar lever slowly through to L, then back to P. Leave the engine idling with the T-bar in P and the park brake firmly applied.

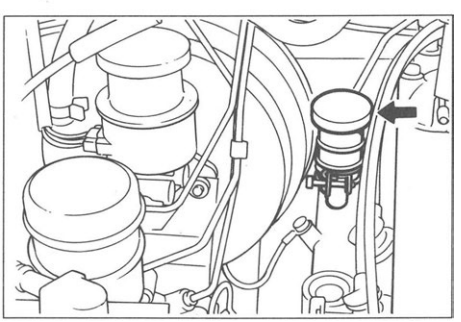
Remove the dipstick by pressing the lock outward while pulling the dipstick up. Wipe it clean with a clean cloth or paper and reinsert it fully. Now remove it again, and while holding the dipstick horizontal, read the fluid level. The level should be between the 2 markings immediately below the "H" mark.

If adding fluid, use only DEXRON®11D or 11E AUTOMATIC TRANSMISSION FLUID. Add the fluid in the same opening as the dipstick is stored in, and wait 1 minute for the fluid to settle. DO NOT OVER FILL. Again check the level with the dipstick and add further oil if necessary. Remember to always replace the dipstick and check that the lock is secure.

The cold markings on the dipstick should only be used as an indication when initially filling the transmission after the fluid has been completely drained. A warm check should always be made after the vehicle has been driven for at least 24 km.

NOTE: If fluid has to be added often, there may be a problem or leak- and you should see your Holden Dealer.

CLUTCH FLUID LEVEL



The clutch fluid level should be checked weekly. The level should be maintained between the minimum and maximum markings.

The same fluid is used for both the brake system and the clutch system. So, if fluid needs to be added use DOT-3 brake fluid. Take care when handling the fluid. Flush with lots of water is spilt on skin or your vehicle. If it gets in your eyes, flush with lots of water and see a doctor as soon as possible.

If fluid often needs to be added, see your Holden Dealer to have the clutch checked.

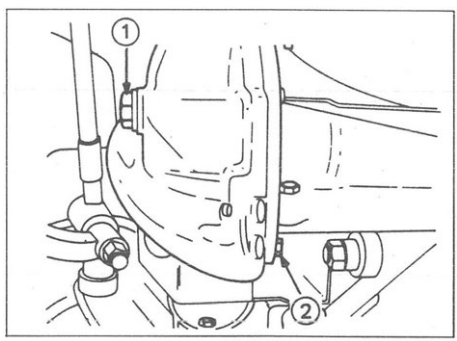
The following levels will be checked for you when you take your vehicle to your Holden Dealer for servicing.

It is recommended that after crossing deep water the following oil levels should be checked as soon as possible:

- rear axle
- front axle
- transfer case
- engine (see page 6-3)
- automatic transmission (see page 6-8) or manual transmission

If the level has increased (indicated by fluid running out of the filler hole or risen on the dipstick) it could be caused by water entry. The water is heavier than oil and will therefore sit on the bottom. If the level is increased, drain a cupful of oil from the drain plug to check for water contamination or colour change (the oil should be clear). If there is any evidence of water the oil should be replaced so as to avoid serious vehicle damage. If you are unsure, you should contact your Holden Dealer.

FRONT AXLE



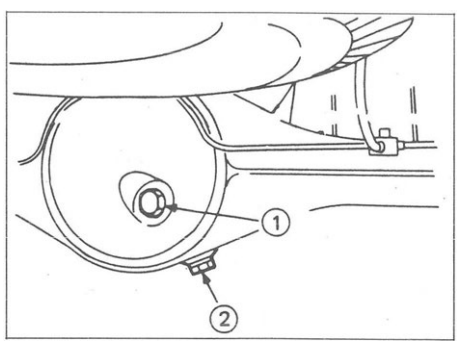
To ensure a correct reading, the vehicle should be parked on a flat surface. For your safety, check that the T-bar lever is in Park and the park brake firmly applied.

Remove the filler plug ① and feel inside the hole with your finger. The oil should come to the bottom edge of the hole. Replace the plug and tighten it.

The correct type of oil is listed on page7-3.

After replacing the plug, visually check the transfer case for leaks or damage. Hole ② is the drain plug.

REAR AXLE



To ensure a correct reading, the vehicle should be parked on a flat surface. For your safety, check that the T-bar lever is in Park and the park brake firmly applied.

Remove the filler plug ① and feel inside the hole with your finger. The oil should come to the bottom edge of the hole.

The correct type of oil is listed on page7-3.

Replace the plug and tighten it.

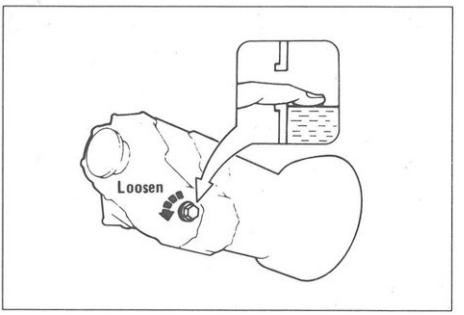
After replacing the plug, visually check the transfer case for leaks or damage. Hole ② is the drain plug.

AUTOMATIC TRANSMISSION TRANSFER CASE OIL

To ensure a correct reading, the vehicle should be parked on a flat surface. For your safety, check that the T-bar lever is in Park and the park brake firmly applied.

Remove the filler plug and feel inside the hole with your finger. The oil should come to the bottom edge of the hole. Replace the plug and tighten it. Use the same oil in the transfer case as is used in the engine.

After replacing the plug, visually check the transfer case for leaks or damage.



MANUAL TRANSMISSION OIL AND MANUAL TRANSMISSION TRANSFER CASE OIL

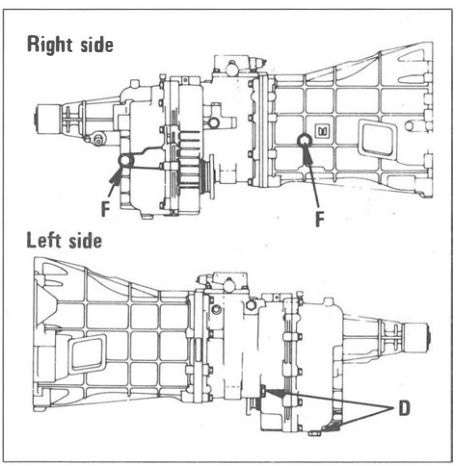
To ensure a correct reading, the vehicle should be parked on a flat surface. For your safety, check that the gear lever is in gear and the park brake firmly applied.

F = Filler plug

D = Drain plug

Remove the filler plug and feel inside the holes with your finger. The oil should come to the bottom edge of the hole. Replace the plug and tighten it. Use the same oil in the manual transmission and the transfer case as is used in the engine.

After replacing the plug, visually check the transfer case for leaks or damage.



TYRE AIR PRESSURE

Checking the air pressure of your tyres (including the spare) ensures your SAFETY, as well as reducing fuel consumption and increasing the life of your tyres.

Make sure your vehicle will handle at it's best - CHECK THE PRESSURES WEEKLY. For constant long distance or rough road travelling, daily checking is recommended.

Refer to the tyre placard for the correct pressure for your tyres. This is located on the driver's door lock pillar, visible when the door is open.

Tyre inflation pressure increases when the tyres have been driven more than 1·5 km. The pressure should be checked when the TYRES ARE COLD (stationary for over 3 hours).

Always use a TYRE PRESSURE GAUGE to check the tyres - simply looking at the tyres is not sufficient, as under inflated radial tyres may look similar to correctly inflated radial tyres.

Remember to put back any valve DUST CAPS or EXTENSIONS if so equipped. This stops dirt and moisture from fouling the valves. Damaged dust caps should promptly be replaced.

Your tyres must be inflated to the correct *cold* inflation pressures (as listed on the tyre placard) in order to load the vehicle to the maximum weights given in Chapter 3. Too low an air pressure causes increased tyre flexing and heat build-up. This weakens the tyre and increases the chance of damage of failure. It can result in tyre overloading, abnormal tyre wear, adverse vehicle handling and reduced fuel economy. Too high an air pressure can result in abnormal wear, harsh ride and can increase the chance of damage from road hazards.

When checking the tyre air pressure, take a look at the condition of the TYRE TREAD for stones or abnormal wear.

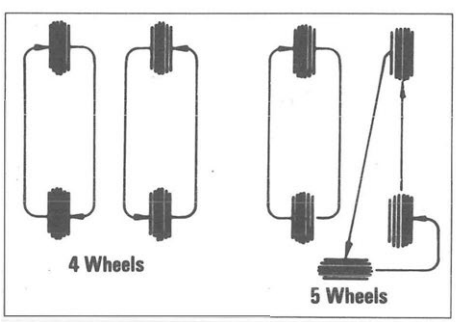
ALIGNMENT AND BALANCE

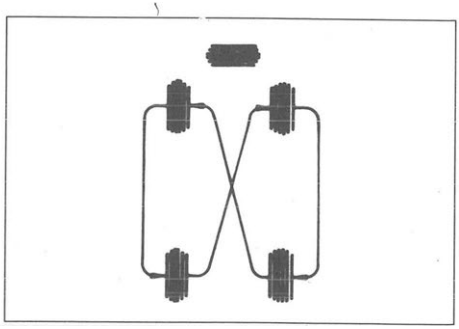
If no abnormal or uneven wear is evident and if you have not experienced any vibration, tyres need not be rotated.

Wear can be evened out by rotating the tyres.

Your Holden Dealer will be able to diagnose any unusual signs of wear and can also balance the wheels and tyres or correct the wheel alignment if necessary.

The optional "X" pattern rotation is acceptable when required for more uniform tyre wear.





TYRE REPLACEMENT

To avoid unpredictable handling, always have exactly the same tyres of all 4 wheels. That is, the same manufacturer, model and size. Especially, don't mix different ply tyres on your vehicle.

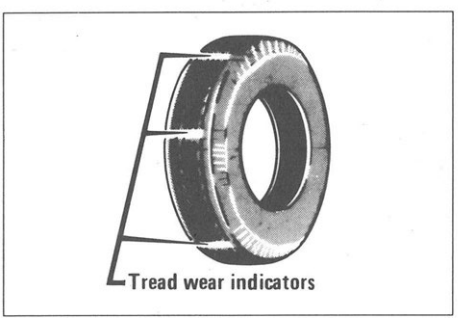
Wrong combinations of replacement tyres and wheel may result in change to tread measurement, resulting in unpredictable handling and stress to steering and suspension. Use only the tyres the wheels approved for your vehicle.

Whenever possible, all 4 tyres on a 4WD vehicle should be replaced at the same time.

If you replace all tyres with tyres of a different size, your speedometer readings may be affected. Have the vehicle checked afterwards.

Tyres with a higher speed rating and/or with a maximum load rating in excess of that listed on the tyre placard are acceptable as replacements, provided they are fitted to a suitable rim size. This does not however mean that your vehicle can carry loads greater than those listed in Chapter 3. Uneven or abnormal tyre wear is usually the result of incorrect inflation pressure, improper wheel alignment, wheels being out of balance, or poor driving habits.

The original equipment tyres incorporate built-in tread wear bars which act as indicators to assist in determining when the tyres have worn excessively. When the wear bars appear, the tyre should immediately be replaced.


Tread wear indicators

WHEEL REPLACEMENT

Wheels should be replaced if damaged, for example if rusted, bent, cracked or if wheel nuts often become loose. Steel wheels that leak air should be replaced, aluminium wheels can often be repaired.

Replacement with used wheels is not advised as they may have been subjected to harsh treatment and could fail without warning.

When replacing wheels for any reason, ensure that the new wheels are equivalent in diameter, rim width, offset and mounting configuration to those originally installed in your vehicle. A wheel(s) of the wrong size or type can affect load carrying capacity, wheel and bearing life, brake cooling, speedo accuracy, stopping ability, headlight aim, bumper height, vehicle ground clearance and tyre chain clearance.

Before fitting wheels, remove any build-up corrosion on the mounting surface and brake disc mounting surface by scraping and wire brushing. Installing wheels without good metal-to-metal contact can cause the wheel nuts to loosen, which could result in a wheel coming off while driving.

TYRE TRACTION

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydro-planing, may cause partial or complete loss of traction, which adversely affects vehicle control and stopping ability. To reduce the possibility of traction loss, the following precautions should be observed.

1. Reduce speed levels during rainstorms or when roads are slushy and if the road has standing water or puddles.
2. Replace tyres when tread is worn down to 1·6 mm.
3. Check that tyres are properly inflated.

Vehicle speed should be limited to 120 km/h is equipped with passenger vehicle-type snow tyres.

TYRE DAMAGE AND REPAIR

Tyres with cuts, splits or cracks deep enough to expose the fabric, should be replaced. Bulges (indicating internal damage) should also be replaced. Tyres with doubtful damage should be removed from the wheel and examined by a competent person.

If a pressure loss occurs while driving, do not attempt to drive on the deflated tyre more than is necessary to stop safely. Driving even a short distance on a deflated tyre can damage it beyond repair.

When puncturing objects are removed, repairs will have to be made according to the recommendations of the tyre manufacturer. I the tyre has a puncture or cut that can't be repaired due of the size or location, then the tyre must be replaced.

It should always be remembered that a tyre which has been repaired will not be able to be operated safely at the rated maximum speed and due care should be taken.

SNOW CHAINS AND TYRES

CHAINS

- Install the chains on the rear tyres only.
- Do not exceed 70 km/h or the chain manufacturer's suggested speed limit, if lower.
- Drive in a restrained manner and avoid large bumps, potholes, severe turns or other maneuvers which could cause the vehicle to bounce up and down.
- Follow the chain manufacturer's instructions.

TYRES

If your vehicle has snow tyres, be sure they are the same size, load range and construction type as your other tyres. Vehicle speed should be limited when equipped with snow tyres.

The main fuse box is located under the dash, refer page 1-22. A second fuse box is installed under the bonnet, pictured.

If a fuse has been blown out check to locate the cause of trouble and give necessary service attention before replacing the fuse. When replacing the fuse, use a cartridge of the same amperage.

If the replaced fuse also burns out you should see your Holden Dealer.

Caution: When replacing a fuse be sure to use a fuse of the specified amperage, as indicated on the fuse box panel cover. Never install a wire or similar for replacement as it may cause a fire hazard to the vehicle.

FUSE BOX UNDER DASH

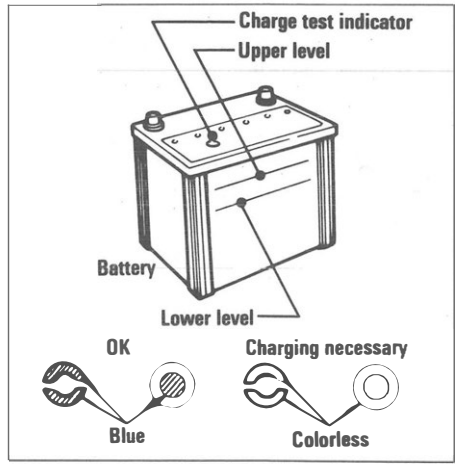
C-1	10A	Starter
C-2	-	-
C-3	10A	Turn signal light, reverse light
C-4	10A	Elect. ig
C-5	15A	Windscreen wiper, washer
C-6	10A	Rear wiper, washer
C-7	10A	Headlight wiper, washer
C-8	15A	Engine
C-9	15A	Petrol - ignition coil Diesel - Fuel cut
C-10	7·5A	Instruments
C-11	10A	Radio, electric mirrors
C-12	20A	Cigarette lighter
C-13	15A	Tail lights, parkers, side repeaters, licence light, illumination lights
C-14	15A	Stop light, auto trans
C-15	15A	Horn, Hazard lights
C-16	25A	Rear window demister
C-17	7·5A	Interior lights, clock
C-18	20A	Electric door locking
C-19	25A	Heater fan
C-20	-	-
Circuit break	20A	Electric window

FUSE BOX UNDER BONNET

F-1		-	-
F-2	Petrol	10A	0_2 sensor, heater
	Diesel	-	-
F-3		7·5A	Air conditioning
F-4		15A	Left headlight
F-5		15A	Right headlight
F-6		-	-
F-7		-	-
F-8		15A	Front fog lights
F-9		-	-
F-10	Petrol	15A	Fuel pump
	Diesel	-	-
F-11		-	-
F-12		-	-
F-13	Petrol	30A	ECM
	Diesel	40A	Ceramic heater
F-14		-	-
F-15	Petrol	-	-
	Diesel	50A	Glow
F-16		-	-
	80A		Main
	50A		Key switch

BATTERY WITHOUT FILLER CAPS

You will never have to add water. The test indicator in the top of the battery is provided for information testing purposes only.



BATTERY WITH REMOVABLE FILLER CAPS

The fluid level of the battery will be checked for you when you take your vehicle to be serviced by your Holden Dealer. If your vehicle is operated in hot temperatures or at constant high speed, the battery fluid level should be checked at least twice between the 6 month Dealer Service.

CAUTION:

Batteries emit an explosive gas mixture which may be ignited by sparks or naked flames. You should therefore keep sparks and flames away from the battery at all times. Never smoke near a battery.

Batteries contain sulphuric acid. If acid contacts skin or clothing, flush immediately with a lot of water. In case of eye contact, flush with a lot of water and contact a doctor immediately.

Take care with all metal objects and tools including items you may wear (e.g. jewelry, ring and metal watchbands) near battery terminals. Metal objects that touch battery terminals can cause sparks and serious heat burns to the user or wearer.

When checking the battery level, make sure the engine is not running. Each of the six cells must be individually checked. Use distilled water, as required, to keep the level just below the bottom of each split tube. DO NOT OVER FILL.

Refer page 4-8 for emergency starting when the battery is flat.

MISCELLANEOUS CHECKS

As well as taking your vehicle to be serviced (refer page 8-2) there are a few simple, weekly checks at the owner (or nominee) is required to make. These are shown of the following pages.

The following checks should also be regularly done to ensure proper safety and dependability of your vehicle.

CHECK:

- that all exterior lights are working and that their appropriate interior indicators light up when in operation.
- mirrors and glass are clean and not scratched.
- automatic transmission T-bar indicator correctly lines up next to the gear selected.
- the aim of water on the windscreen and condition of the wipers
- demister operates
- horn works.
- all seat belt condition and operation (give it a sharp tug to make sure that it will 'lock' if necessary) and check that buckles are clean and operating correctly. Remember that seat belts must never be worn twisted.
- oil/fluid leaks
- be alert for any changes in steering action. An inspection of the steering is needed when the steering wheel is harder to turn or has too much free play or if there are unusual sounds when turning.
- be alert to any changes in the sound of the exhaust system or any smell of fumes.

SERVICE MANUALS

I-GM also publishes various service manuals which are available from your Holden Dealer.

SEAT BELTS MAINTENANCE

Check seat belts regularly. Replace the belts if they become frayed or damaged. The buckle and retractor mechanism operations should also be checked.

Seat belts must be replaced if they have been in use during a severe impact - even if there is no obvious damage.

Some cleaners may be poisonous or flammable and their improper use may cause personal injury or damage the inside of the vehicle. Therefore, when cleaning the inside of the vehicle, DO NOT USE volatile cleaning solvents such as: acetone, lacquer thinners, enamel reducers, nail polish removers; or such cleaning materials as laundry soaps, bleaches or reducing agents except as noted in the fabric cleaning advice on stain removal that follows. NEVER use carbon tetrachloride, gasoline, benzene or naphtha for any cleaning purpose.

Overexposure to these vapors may result in a health problem. This is even more likely to occur in small, un-ventilated spaces. It is recommended that all vehicle doors be opened for ventilation when any cleaning agents or other chemicals are used in the interior. Approved respiratory protection equipment may be needed. Follow the manufacturer's advice whenever cleaning agents or other chemicals are used, inside or outside the vehicle.

To avoid possible permanent discoloration of white or light coloured seats, DO NOT let materials with unstable dyes come in contact with seat trim materials until the trim materials are completely dry (this would include certain types of casual clothing, such as colored denims, corduroys, leathers and suedes, decorative paper, etc.).

EXTERIOR

WASHING

The best way to preserve your vehicle's finish is to keep it clean by frequent washing. Wash the vehicle in lukewarm or cold water.

Do not use hot water or wash in the direct rays of the sun. Do not use strong soap or chemical detergents. All cleaning agents should be promptly flushed from the surface and not allowed to dry on the finish.

POLISHING and WAXING

Polishing is recommended to remove accumulated residue and eliminate any 'weathered' appearance.

Your Holden Dealer offers several polishes and cleaners which have proven value in maintaining original finish appearance and durability.

BRIGHT METAL PARTS

Bright metal parts should be cleaned regularly to keep their luster. Washing with water is all that is usually needed. However, chrome polish may be used on CHROME or STAINLESS STEEL trim, if necessary. A coating of wax, rubbed to a high polish, is recommended for all bright metal parts.

ALUMINIUM WHEELS

Aluminium wheels have a clear finish similar to paint. Use a chamois, sponge or other soft material when washing the wheels.

FOREIGN MATERIAL DEPOSITS

Road oil, tar, sap, salt, bird droppings, chemicals from industrial chimneys and other foreign matter may damage vehicle finishes if allowed to remain on painted surfaces.

Prompt washing may not completely remove all of these deposits. when using chemical cleaners developed for this purpose be certain they are safe for use on painted surfaces.

FINISH DAMAGE

Any stone chips, fractures or deep scratches in the finish should be repaired promptly. Exposed metal will corrode quickly and may develop into a major repair expense.

Minor chips and scratches can be repaired using touch-up materials available from your Holden Dealer.

CORROSION PROTECTION

Generally, your vehicle has been designed and built to resist corrosion. Special materials and protective finishes were applied to most parts of your vehicle when it was built to help maintain good looks, strength and reliable operation. However, some parts which are normally not visible (such as certain parts under the vehicle and under the hood) are strong enough so that surface rust will not affect their reliability. So corrosion protection is not needed or used on these parts. By omitting unneeded rust protection on such parts and applying extra protection where it is needed most, the best value is assured for the buyer.

SHEET METAL DAMAGE

If your vehicle is damaged and required sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to the parts repaired or replaced so that corrosion protection is restored.

UNDERBODY MAINTENANCE

It is recommended to flush the underbody with plain water at least once a year. Take care to clean any areas well where mud and other debris can collect. Sediment packed in closed areas of the frame should be loosened before being flushed.

WIPER BLADE CLEANING

Much of the road scum thrown up onto the windscreen glass (causes smearing when the wipers are switched on) transfers onto the wiper blades. Many owners, whilst they methodically clean the windscreen glass, omit to clean the wiper blades and consequently smearing of the glass re-appears immediately the wiper blades are set in motion. The blades can be cleaned by simply lifting them off the windscreen glass and then using warm water and a recognised washing fluid.

IMPORTANT: Do not operate the wipers blades by hand as this may damage the wiper drive mechanism.

Should the wiper blades be frozen to the windscreen, it is imperative that they be lifted off and freed by hand before switching on the wipers.

INTERIOR

With the use of modern trim materials it is VERY IMPORTANT that proper cleaning techniques and cleaners be used. Failure to do this on the first cleaning may result in water spots, spot rings or setting of stains, all of which make it more difficult to remove on a second cleaning.

The portions of the following cleaning instructions that re in **bold face** are especially important and MUST be followed.

Dust and loose dirt that accumulate on interior fabrics should be removed often with a vacuum cleaner or soft brush. Vinyl or leather trim should be wiped regularly with a clean damp cloth. Normal trim soil, spots or stains can be cleaned with conventional cleaners:

Remember these three basic steps before cleaning:

1. Remove stains as quickly as possible before they become 'set'.
2. Use a clean cloth or sponge and change to a clean area often. A soft brush may be used if stains persist.
3. Use solvent type cleaners only in a well ventilated area. Do not saturate the stained area.
4. If a ring forms after spot cleaning, clean the entire area IMMEDIATELY.
5. Follow specific instruction on cleaner labels.

GENERAL SOILAGE OR WATER SPOTS FROM FABRIC

Multipurpose powdered cleaner is excellent for this type of cleaning and for cleaning panel sections where small cleaning rings may be left from spot cleaning.

- Vacuum area thoroughly to remove loose dirt.
- ALWAYS clean a full trim assembly or complete trim section. Mask surrounding trim along stitch or welt lines.
- Mix multipurpose powdered cleaner in strict accordance with directions on the label of the container. Mix in proportion for smaller quantities.
- USE SUDS ONLY ON A CLEAN SPONG OR SOFT BRISTLE BRUSH. DO NOT SATURATE FABRIC OR RUB HARSHLY WITH BRUSH.
- IMMEDIATELY AFTER CLEANING WIPE OFF EXCESS CLEANER WIHT SLIGHTLY DAMP ABSORBENT COWEL OR CLOTH.
- IMMEDIATELY AFTER WIPING, FORCE-DRY WITH AIR HOSE, HAIR DRYER OR HEAT LAMP. Use caution with hair dryer or lamp to prevent damage to fabric.
- When trim materials with a sheen or luster finish are dry, wipe fabric lightly with a soft, dry, clean cloth to restore the sheen or luster.

SPOT CLEANING WITH SOLVENT CLEANER

Before trying to remove a spot or stain from fabric, determine as accurately as you can when kind and how old the spot or stain is. Some spots or stains can be removed with water or mild soap solutions, refer 'Removal of specific stains'. Spots or stains should always be removed as soon as possible.

Some types of marks, such as lipstick, inks and grease, are very difficult (sometimes impossible) to completely remove. When cleaning this type of stain be sure not to enlarge the soiled area. Fabric cleaner (solvent type) is excellent for spot cleaning grease, oil or fat.

- Gently scrape excess stain off trim material with a clean, DULL knife or scraper. USE VERY LITTLE CLEANER, light pressure and clean cloths (preferably cheesecloth). Cleaning should be from the outside of the stain "feathering" towards the centre. Keep changing to a clean section of cloth.
- When the stain is cleaned from the fabric, immediately dry the area with an air hose, hair dryer or heat lamp to help prevent a cleaning ring. Use caution with hair dryer or lamp to prevent damage to fabric.
- If a ring forms, immediately repeat the cleaning operation over a slightly larger area with emphasis on 'feathering' towards its center. If ring still remains, mask off surrounding trim sections and clean entire affected area with a multi-purpose powder cleaner (as described under 'General soilage or water spots from fabric').

SPECIFIC STAINS

Grease or oil

These include butter, margarine, shoe polish, coffee with cream, chewing gum, cosmetic creams, vegetable oils, wax, crayon, tar and asphalt.

- Carefully scrape off excess stain, then use fabric leaner (solvent type) as previously described.
- Shoe polish, wax crayons, tar and asphalt will stain if allowed to remain on trim. They should be removed as soon as possible. Use caution as cleaner will dissolve them and may cause them to bleed.

Non-greasy stains

These include black coffee, egg, fruit, fruit juice, milk, soft drinks, wine, vomit and blood.

- Carefully scrape off excess stain, then sponge stain with cool water.
- If stain remains, use a multipurpose powdered cleaner (foam type) as previously described.
- If odor persists after cleaning vomit or urine, treat area with a water-waking soda solutions: 5 ml (1 teaspoon) baking soda to 250 ml (1 cup) warm water.
- Finally, if needed, clean lightly with fabric cleaner (solvent type).

Combination stains

These include ice cream, mayonnaise, chilli sauce and unknown stains.

- Carefully scrape off excess stain, then clean with cool water and allow to dry.
- If stain remains, clean with fabric cleaner (solvent type).

Cleaning vinyl or leather

Ordinary soilage can be removed with warm water and a mild soap such as saddle soap or oil soap.

- Apply a small amount of soap solution and allow to soak for a few minutes to loosen dirt, then rub briskly with a clean damp cloth to remove dirt and traces of soap. This may be repeated several times, if necessary.
- Some compounds such as tar, asphalt, shoe polish etc. will stain if allowed to remain to trim. They should be wiped off as quickly as possible and the area cleaned with a clean cloth dampened with vinyl cleaner (solvent type).

Seat belts

- Clean seat belts only with mild soap and lukewarm water.
- DO NOT BLEACH OR DYE BELTS AS THIS MAY SEVERELY WEAKEN THEM.

Cleaning class surfaces

Glass surfaces should be cleaned regularly. Use of glass cleaner will remove normal tobacco smoke and dust films sometimes caused by ingredients used in vinyls and interior plastics.

Never use abrasive cleaners on any vehicles glass as they may cause scratches.

Chapter 7

Specifications & Emissions

Page

7-2 Engine Specifications
7-3 Transmission Specifications
7-3 Axle Specifications
7-4 Brakes
7-4 Steering
7-4 Clutch
7-4 General Lubricants
7-5 Dimensions
7-5 Wheel alignment
7-6 Electrical Specifications
7-7 Identification Plates & Labels
7-9 Emission Control Information

Engine		Petrol - 6VD1	Diesel - 4JG2
Description		6 cylinder, 24 valve, overhead cam, electronic fuel injection	4 cylinder, turbo, overhead valve
Piston Displacement		3,165cc	3,059 cc
Compression Ratio		9·3:1	20·0:1
Power		130 kW @ 5,200 rpm	84 kW @ 3,600 rpm
Torque		260 Nm @ 3,750 rpm	260 Nm @ 2,000 rpm
Valve Clearance (cold)	Intake	non-adjustable, hydraulic	0·40 mm
	Exhaust		0·40 mm
Oil	Capacity	6.0 litres (with filter) 5.3 litres (without filter)	6·0 litres (with filter) 5·0 litres (without filter)
	Specifications	SF or SG grade oil. For normal use, 20W/40 viscosity is recommended. If operating in temperatures over 35°, use 20W/50 viscosity. For prolonged use in snow areas, the use of 15W/40 or 15W/30 is recommended.	CD or CE grade diesel engine oil SAE 30
Coolant	Capacity	8·8 litres - auto trans 8·5 litres - manual trans	8·6 litres
	Specifications	50% water and 50% Long Life Coolant conforming to Holden's specification no. HN 2043, part no. M40236 (1 litre) or M40307 (5 litres).	

PETROL ENGINES ONLY: Engine tune-up data, including spark plug gap, timing and idle speed will be found on the Emission Label, inside the engine compartment of your vehicle. Refer page 7-9 for exact location.

TRANSMISSION & TRANSFERS

		Manual	Automatic, with torque converter
Gear Ratio:1	1st	3.767	2.856
	2nd	2.248	1.618
	3rd	1.404	1.000
	4th	1.000	0.723
	5th	0.809	-
	Rev	3.873	2.000
	High	1.000	1.000
	Low	2.283	2.283
Transmission oil capacity (litres)		2.95	8.6 litres (dry fill) T.B.A. (service)
Transfer oil capacity (litres)		1.45	1.45
Transmission Oil specification		Use same oil as used in engine or SAE 5W/30 (BESCO)	Dexron®11D or 11E Automatic Transmission Fluid
Transfer oil specification		Engine oil or (5W/30)	

REAR AXLE

Ratio	Manual trans petrol = 4.300:1 Auto trans petrol = 4.555: 1 All diesel = 4.555:1
Oil Capacity	1.8 litres
Oil type	GL5 grade for Limited Slip Diff + 1 bottle additive P/N 1052358
Viscosity	Below 10° use SAE 80 or SAE 80W/90 -18° to 32° use SAE 90 or SAE 80W/90 consistently above 10°C use SAE 140 or 85W/140

FRONT AXLE

Ratio	Manual trans petrol = 4.300:1 Auto trans petrol = 4.555:1 All diesel = 4.555:1
Oil Capacity	1.5 litres
Oil type	GL5 grade
Viscosity	Below 10° use SAE 80 or SAE 80W/90 -18° to 32° use SAE 90 or SAE 80W/90 consistently above 10°C use SAE 140 or 85W/140

BRAKES

Description	Front wheel disc. Rear wheel disc, incorporating mechanical, drum-in park brake acting on rear wheels.
Fluid Type	DOT 3 brake fluid

STEERING

Type	Power
Ratio	15.8: 1
Oil Capacity	1.0 litre
Oil type	Dexron ® 11D or 11E

CLUTCH

Description	Dry single plate disc with diaphragm spring, hydraulic control
Size	Petrol = 260 mm
	Diesel = 250 mm
Fluid	DOT 3

GENERAL LUBRICANTS

Chart system pivot points, bonnet pivots and spring anchor, bonnet and door hinges, body door hinge pins and linkage, fuel door hinge rear compartment lid hinges, key lock cylinder	Apply a thin film of light engine oil
Clutch fork joint, bonnet latch release pawl, chassis lubrication, park brake cables, drive shaft sliding yoke, accelerator linkage	Water resistant EP Chassis grease
Door weather-strips, rubber hood bumpers	Lightly coated with a rubber lubricant
Universal joints	Grease containing MoS_2 (molybdenum disulfide type grease)

DIMENSIONS

Wheelbase	2 door 4 door	2330 mm 2760 mm
Overall length (including spare tyre)	2 door 4 door	4230 mm 4660 mm
Overall width		1745 mm
Overall height (at curb weight)	2 door 4 door	1835 mm 1840 mm
Minimum Ground Clearance		215 mm
Wheel Track	Front Rear	1455 mm 1460 mm

FRONT WHEEL ALIGNMENT

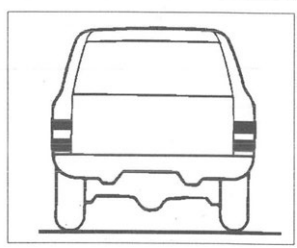
Toe-in	0 ± 2 mm
Camber	0° ± 30'
Caster	+ 2° 10' ± 45'

FUSES
Refer page 6-14.

LIGHT BULBS

APPLICATION	BULB no	QUANTITY	WATTAGE
FRONT LIGHTS			
Headlight (Halogen)	H4	2	60/55 W
Turn signal	P-25-1	2	21 W
Park lights	R19/5	2	5 W
Side Turn Signal	W10/5	2	5 W
Fog light	H3	2	55 W
REAR LIGHTS			
Reverse	P-25-1	2	21 W
License	W10/5	2	5 W
Tail, Stop	P-25-2	2	5/21 W
Turn signal	P-25-1	2	21 W
INTERIOR ILLUMINATION			
Dome light	-	1	10 W
Map light	-	2	5 W
Luggage compartment light	-	1	8 W
Courtesy light (on door)	194	4 (4 door)	3.8 W
	"	2 (2 door)	"
Glovebox	-	1	1.2 W
Ashtray	74	1	1.4 W

Note that Australian Design Regulations have restricted the use of the rear lights indicated by grey in the illustration. This ruling deems it illegal to connect these lights for use in Australia.



ALTERNATOR	PETROL	M+A	75 AMH
	DIESEL	M	50 AMH

BATTERY

	Petrol, manual transmission	Petrol, automatic transmission	Diesel
Type	75D26R	80D26R	95D31R
Voltage	12	12	12
Cold cranking performance	490 Amp	582 Amp	622 Amp
Reserve capacity	123 Min	133 Min	159 Min

ENGINE NUMBER LOCATION

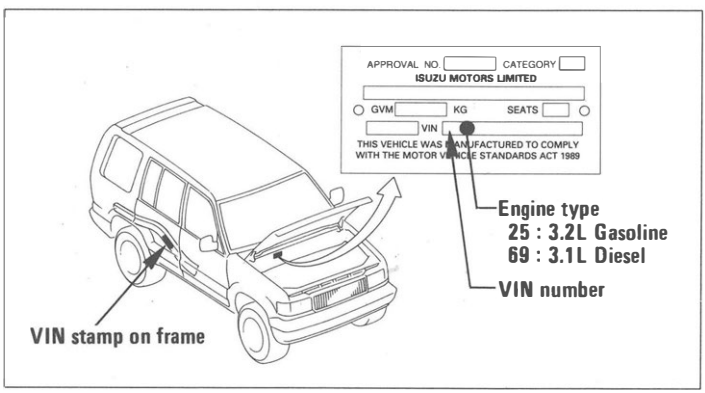
Petrol

The engine number is stamped on the passenger's side of the cylinder block near the starter. You can see the engine number through the wheel housing by turning the wheel.

Diesel

The engine number is stamped on the rear passenger's side of the cylinder block.

VEHICLE IDENTIFICATION NUMBER (VIN)



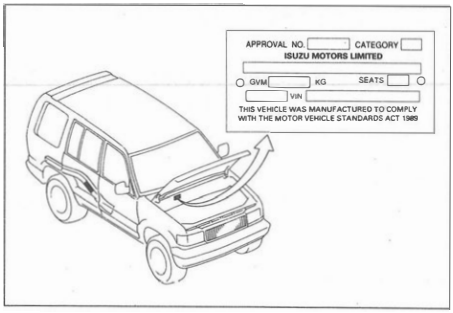
I.S.O.V.I.N. plate

JAC UBS 25 D N 7 123456

- 123456 — Sequential production serial number
- 7 — Assembly Plant Code
- N — Model Year Code N= 1992
- D — Wheel Base D=Short; G=Long
- 25 — Engine code 25=petrol; 69= diesel
- UBS — Model Code
- JAC — World Manufacturer Identifier

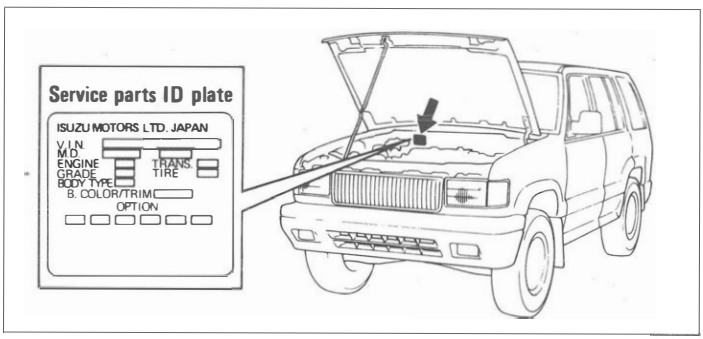
SAFETY COMPLIANCE PLATE

Shown on this plate are the Approval numbers, Category, Manufacturer's Name, Model name and Model code, G.V.M. (Gross Vehicle Mass), Seating Capacity, Build date and V.I.N. (Vehicle Identification Number).



BODY & OPTION IDENTIFICATION PLATE (Service parts ID plate)

The built date (shown on this plate) is defined as "the date of manufacture" by calendar month and year in which the body shell and power train sub-assemblies are co-joined or moved from the production line.



TYRE PRESSURE PLACARD

The tyre placard is on the driver's door lock pillar, visible when the door is open.

EMISSION LABEL

Refer following page.

During the combustion process in an automotive engine, some of the fuel (hydrocarbons) fail to burn and are discharged into the engine crankcase or exhaust system. Additionally, hydrocarbons are emitted into the atmosphere through evaporation of petrol vapours from the fuel tank. Of the total hydrocarbons coming from uncontrolled automobiles, about 25% are emitted from the crankcase, 20% from the fuel system and 55% from the engine exhaust.

In addition to hydrocarbons, carbon monoxide and oxides of nitrogen are also formed during the combustion process. These are also discharged into the exhaust system.

There are three areas from which pollutants are emitted:

(a) Exhaust System

(b) Crankcase

(c) Fuel System

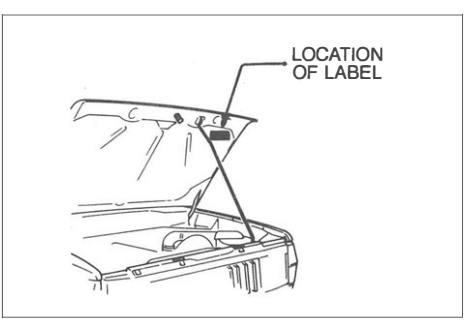
A number of controls have been installed by I-GM to control the amount of pollutants emitted from your new vehicle.

It is recommended that any replacement parts used for required maintenance services or for the repair of emission control systems be new parts. Use of replacement parts which are not of equivalent quality may impair the effectiveness of such systems, and may adversely affect your Vehicle Warranty.

EMISSION CONTROL INFORMATION LABEL

The label is located on the inside of the bonnet.

Information on this label includes ignition timing, idle speed and spark plug gap settings.



Chapter 8

Service/Maintenance Schedule

Page

8-2 When to Have the Service Carried out

8-3 Extreme Operating Conditions

8-4 Maintenance Schedule

8-5 Suggested times for each service

8-7 Beginning of Maintenance Coupons

8-9 Intermediate oil Change Record

8-35 Notice of Name/ Address/ Ownership Change

When it comes to service, remember that your Holden Dealer has the trained personnel and specialised equipment to correctly service your vehicle. Your Dealer invites you to return for all your service needs both during and after the warranty period.

The safety, economy, emission control, performance and reliability of your vehicle cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians.

Therefore, it is in the owner's interest that the following services are performed at the specified Distance or Months (whichever occurs first).

5,000 km	- 3	month
10,000 km	- 6	month
20,000 km	- 12	month
30,000 km	- 18	month
40,000 km	- 24	month
50,000 km	- 30	month
60,000 km	- 36	month
70,000 km	- 42	month
80,000 km	- 48	month
90,000 km	- 54	month
100,000 km	- 60	month
110,000 km	- 66	month
120,000 km	- 72	month

The three month (5,000 kilometres) service will be performed without cost for labour by the Selling Dealer.

This service may be carried out by another Holden Dealer provided you have a letter of Introduction from the Selling Dealer. Your Dealer will supply the necessary letter of Introduction upon request.

It is the owner's responsibility to have the engine oil changed between the regular service interval of 10,000 km or 6 months, refer page 8-9.

The services shown in this schedule between 5,000 and 120,000 are to be performed after 120,000 km at the same intervals.

NOTE: All maintenance services as listed in this handbook and replacement of service items are the responsibility of the owner and as such are NOT considered, under the provisions of the new vehicle warranty to be rectification of defective material and workmanship. Items such as wheel alignment, necessary adjustments to drive belts, transmission, clutch, parking brake, etc. or any other items which may require servicing due to fair wear and tear will be carried out at the owner's cost.

Failure to have proper maintenance services carries out by an Authorised Holden Dealer or service Dealer may void your new Vehicle Warranty. It is strongly recommended that you read the "New Vehicle Warranty" on page 5-2, so that you are conversant with your entitlements.

As each service is performed and the coupon removed, the following service coupon is readily visible to remind you when the next service is due.

After the service is completed, the owner should see that the Validation Record is stamped and signed by the Dealer. This is important as it will not only assist in the determination of Warranty Claims, but enhance the value of the vehicle whenever resale is contemplated.

If your vehicle operates under any of the extreme conditions listed in the following table it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Plan.

NOTE: The extra services listed below need only be used continuously if your vehicle operates continuously under the conditions specified.

If you operate under any of these conditions on a one off basis e.g. holiday trip, then an extra service should be for that period only.

As a guide, if you operate continually for a period of one month or 1,000 kilometres under any of the extreme conditions, then this could qualify for additional services.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of your Holden Dealer.

Change petrol engine oil every 5,000 km			C	D
Change diesel engine oil every 2,500 km			C	D
Replace petrol engine oil filter every 10,000 km			C	D
Replace diesel engine oil filter every 5,000 km			C	D
Change air cleaner element every 10,000 km			C	
Inspect steering system for looseness or damage every every 5,000 km		B		
Inspect universal joints and sleeve for wear every 5,000 km		B	C	
Change manual transmission and transfer case oil every 20,000 km (after initial change at 5,000 km)		B		
Change auto trans fluid and strainer every 40,000 km	A	B	C	D
Change auto transmission transfer case oil every 20,000 km (after initial change at 5,000km)		B		
Change differential oil every 20,000 km (after initial change at 5,000 km)		B		
Inspect disc brake pads and discs every 5,000 km	A	B	C	

A = Repeated short trips

B = Driving on rough roads

C= Driving on dusty roads

D = Repeated short trips in extremely cold weather

I: Inspect and correct or replace as necessary **R:** Replace or change
T: Tighten to specified torque **L:** Lubricate **A:** Adjust P: Petrol D: Diesel

Use odometer reading or years, whichever occurs first	X 1000 km	5	10	20	30	40	50	60	70	80	90	100	110	120
	or years	·25	0·5	1	1·5	2	2·5	3	3·5	4	4·5	5	5·5	6
UNDER BONNET														
P Engine oil			R	R	R	R	R	R	R	R	R	R	R	R
P Engine oil filter			R		R		R		R		R		R	
D Engine oil (every 5,000 km or 3 months)														
D Engine oil and filter		R	R	R	R	R	R	R	R	R	R	R	R	R
Oil contamination		I	I	I	I	I	I	I	I	I	I	I	I	I
All fluid levels: power steering, brake, washer, auto trans, clutch, battery		I	I	I	I	I	I	I	I	I	I	I	I	I
Coolant level 50% concentration		I	I	I	I	R	I	I	I	R	I	I	I	R
Radiator cap pressure				I		I		I		I		I		I
D Idling speed and acceleration		I	I	I	I	I	I	I	I	I	I	I	I	I
P Timing belt												R		
All hoses and pipes in engine compartment for deterioration or leaks			I	I	I	I	I	I	I	I	I	I	I	I
Clean front of radiator core and A/C condensor				I		I		I		I		I		I
Fuel filter				R		R		R		R		R		R
Air cleaner element				R		R		R		R		R		R
All V-drive belts for tension and damage		I	I	I	I	I	I	I	I	I	I	I	I	I
D Valve clearance		A		A		A		A		A		A		A
P Spark plugs						R				R				R
P Spark plug leads												I		
P Pre air cleaner		I	I	I	I	I	I	I	I	I	I	I	I	I
Oxygen sensor		replace every 150,000 km or 7.5 years												
UNDER VEHICLE														
Clutch fluid						R				R				R
Brake fluid						R				R				R
Manual trans with transfer case oil		R	I	I	I	R	I	I	I	R	I	I	I	R
Automatic trans transfer case oil		R	I	I	I	R	I	I	I	R	I	I	I	R
Universal joints and splines for wear			I	I	I	I	I	I	I	I	I	I	I	I
Universal joints and sliding sleeve			L	L	L	L	L	L	L	L	L	L	L	L
Differential gear oil (front and rear)		R	I	I	I	R	I	I	I	R	I	I	I	R
Disc brake pads and disc wear			I	I	I	I	I	I	I	I	I	I	I	I
Wheel nuts		T	T	T	T	T	T	T	T	T	T	T	T	T
Wheel bearing grease					R			R			R			R
Front and rear hub bearings for looseness				I		I		I		I		I		I

I: Inspect and correct or replace as necessary **R:** Replace or change
T: Tighten to specified torque **L:** Lubricate **A:** Adjust

Use odometer reading or years, whichever occurs first	X 1000 km	5	10	20	30	40	50	60	70	80	90	100	110	120
	or years	·25	0·5	1	1·5	2	2·5	3	3·5	4	4·5	5	5·5	6
UNDER VEHICLE cont.														
Tyre pressure and wheels and tyres for damage		I	I	I	I	I	I	I	I	I	I	I	I	I
Tyre rotation		ROTATE AS NECESSARY												
General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks		I	I	I	I	I	I	I	I	I	I	I	I	I
INSIDE VEHICLE														
Clutch pedal travel and free play		I	I	I	I	I	I	I	I	I	I	I	I	I
Steering wheel play		I	I	I	I	I	I	I	I	I	I	I	I	I
Brake pedal travel and free play		I	I	I	I	I	I	I	I	I	I	I	I	I
Park brake lever travel		I		I		I		I		I		I		I
Park brake ratchet for wear or damage				I		I		I		I		I		I
ROAD TEST														
Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.		I	I	I	I	I	I	I	I	I	I	I	I	I
SERVICE TIMES														
Petrol engine		-	1.1	1.4	1.9	2.0	1.1	2.2	1.1	2.0	1.9	2.9	1.1	2.7
Diesel engine		-	1.0	2.2	1.8	2.5	1.0	2.9	1.0	2.5	1.8	2.2	1.0	3.2
add for automatic transmission		-	-	-	-	0.2	-	-	-	0.2	-	-	-	0.2
add for manual transmission		-	-	-	-	0.4	-	-	-	0.4	-	-	-	0.4

The owner will be charged for all lubricants and materials used plus labour at the times recommended above. The repair or replacement of any part found faulty during a service check and not covered by Holden's Warranty will be added to the charges.Where any deficiencies are noted, such items should be reported to the owner/operator so that the extra work can be authorised.

5,000 km *or* 3 month Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

This coupon should not be removed until the vehicle is presented for service.

Owner's Name Mr. Mrs. Miss. Other..... .....

Address .....

Town & State..... Postcode.....

Reg. no..... Eng. no.....

Selling Dealer's Stamp & Signature.....

Date of Acquisition .....

This vehicle has been thoroughly checked in accordance with the schedule on the reverse side of this coupon.

Servicing Dealer's Stamp & Signature.....

Servicing Dealer.....

Town .....State.....

Owner's Signature.....

This Service will be carried out without labour charge to the owner. The owner will, however, be charged for any lubricants or parts used.

5,000 km or 3 month Service Validation

This vehicle has been thoroughly checked in accordance with the 3 month - 5,000 km Service.

Dealer .....

Service Manager's Signature.....

Date .....Odometer Reading.....

UNDER HOOD OPERATIONS

❒Diesel: Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check idling speed and acceleration

❒Check all V-drive belts for tension and damage

❒Diesel: Adjust valve clearance

❒Petrol: Check auto choke function

❒Petrol: Check auto choke fast idle speed

❒Petrol: Inspect pre air cleaner

UNDER VEHICLE OPERATIONS

❒Change manual transmission with transfer case oil

❒Change automatic transmission transfer case oil

❒Change differential gear oil (front and rear)

❒Tighten wheel nuts

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

❒Check park brake lever travel

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

15,000 km or 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
25,000 km or 1 year & 3 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
35,000 km or 1 year & 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
45,000 km or 2 years & 3 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
55,000 km or 2 years & 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
65,000 km or 3 years & 3 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
75,000 km or 3 years & 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
85,000 km or 4 years & 3 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
95,000 km or 4 years & 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
105,000 km or 5 years & 3 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....
125,000 km or 5 years & 9 months diesel oil change	Intermediate diesel oil change carried out at..... km on (date)..... Servicing Dealer.....

10,000 km *or* 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·1 hours for petrol engine
- 1·0 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested. .....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

10,000 km *or* 6 months SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

- ❒Check level of manual transmission with transfer case oil
- ❒Check level of automatic transmission transfer case oil
- ❒Inspect universal joints and splines for wear
- ❒Lubricate universal joints and sliding sleeve
- ❒Check level of differential gear oil (front and rear)
- ❒Inspect disc brake pads and disc wear
- ❒Tighten wheel nuts
- ❒Check tyre pressure and wheels and tyres for damage
- ❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

- ❒Check clutch pedal travel and free play
- ❒Check steering wheel play
- ❒Check brake pedal travel and free play

ROAD TEST

- ❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

20,000 km *or* 1 year Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·4 hours for petrol engine
- 2·2 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested. .....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Petrol: Change engine oil

❒Diesel: Change engine oil (every 5,000 km) and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check radiator cap pressure

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Clean front of radiator core and A/C condenser

❒Replace fuel filter

❒Replace air cleaner element

❒Check all V-drive belts for tension and damage

❒Diesel: Adjust valve clearance

❒Petrol: Inspect pre air cleaner

20,000 km *or* 1 year SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

- ❒Check level of manual transmission with transfer case oil
- ❒Check level of automatic transmission transfer case oil
- ❒Inspect universal joints and splines for wear
- ❒Lubricate universal joints and sliding sleeve
- ❒Check level of differential gear oil (front and rear)
- ❒Inspect disc brake pads and disc wear
- ❒Tighten wheel nuts
- ❒Inspect front and rear hub bearings for looseness
- ❒Check tyre pressure and wheels and tyres for damage
- ❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

- ❒Check clutch pedal travel and free play
- ❒Check steering wheel play
- ❒Check brake pedal travel and free play
- ❒Check park brake lever travel
- ❒Check park brake ratchet for wear or damage

ROAD TEST

- ❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

30,000 km *or* 1 year & 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·9 hours for petrol engine
- 1·8 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested. .....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

30,000 km *or* 1 year & 6 months SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Repack wheel bearings

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

40,000 km *or* 2 years Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 2·0 hours for petrol engine
- 2·5 hours for diesel engine
- add 0·2 hours for automatic transmission
- add 0·4 hours for manual transmission

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Petrol: Change engine oil

❒Diesel: Change engine oil (every 5,000 km) and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check radiator cap pressure

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Drain coolant & refill with water & inhibitor (50% Glycol)

❒Clean front of radiator core and A/C condenser

❒Replace fuel filter

❒Replace air cleaner element

❒Check all V-drive belts for tension and damage

❒Petrol: Check auto choke fast idle speed

❒Petrol: Replace spark plugs

❒Petrol: Inspect pre air cleaner

40,000 km *or* 2 years SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Change clutch fluid

❒Change brake fluid

❒Change manual transmission with transfer case oil

❒Change automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Change differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Inspect front and rear hub bearings for looseness.

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

❒Check park brake lever travel

❒Check park brake ratchet for wear or damage

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

50,000 km *or* 2 years & 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·1 hours for petrol engine
- 1·0 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

50,000 km *or* 2 years & 6 months SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

- ❒Check level of manual transmission with transfer case oil
- ❒Check level of automatic transmission transfer case oil
- ❒Inspect universal joints and splines for wear
- ❒Lubricate universal joints and sliding sleeve
- ❒Check level of differential gear oil (front and rear)
- ❒Inspect disc brake pads and disc wear
- ❒Tighten wheel nuts
- ❒Check tyre pressure and wheels and tyres for damage
- ❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

- ❒Check clutch pedal travel and free play
- ❒Check steering wheel play
- ❒Check brake pedal travel and free play

ROAD TEST

- ❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

60,000 km *or* 3 years Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 2·2 hours for petrol engine
- 2·9 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

60,000 km or 3 years SERVICE VALIDATION

UNDER HOOD OPERATIONS

❒Petrol: Change engine oil

❒Diesel: Change engine oil (every 5,000 km) and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check radiator cap pressure

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Clean front of radiator core and A/C condenser

❒Replace fuel filter

❒Replace air cleaner element

❒Check all V-drive belts for tension and damage

❒Diesel: Adjust valve clearance

❒Petrol: Inspect pre air cleaner

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Repack wheel bearings

❒Inspect front and rear hub bearings for looseness

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

❒Check park brake lever travel

❒Check park brake ratchet for wear or damage

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

70,000 km *or* 3 years & 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·1 hours for petrol engine
- 1·0 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested. .....

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.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

70,000 km *or* 3 years & 6 months SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

80,000 km *or* 4 years Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 2·0 hours for petrol engine
- 2·5 hours for diesel engine
- add 0·2 hours for automatic transmission
- add 0·4 hours for manual transmission

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Petrol: Change engine oil

❒Diesel: Change engine oil (every 5,000 km) and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check radiator cap pressure

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Drain coolant & refill with water & inhibitor (50% Glycol)

❒Clean front of radiator core and A/C condenser

❒Replace fuel filter

❒Replace air cleaner element

❒Check all V-drive belts for tension and damage

❒Diesel: Adjust valve clearance

❒Petrol: Replace spark plugs

❒Petrol: Inspect pre air cleaner

80,000 km *or* 4 years SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

- ❒Change clutch fluid
- ❒Change brake fluid
- ❒Change manual transmission with transfer case oil
- ❒Change automatic transmission transfer case oil
- ❒Inspect universal joints and splines for wear
- ❒Lubricate universal joints and sliding sleeve
- ❒Change differential gear oil (front and rear)
- ❒Inspect disc brake pads and disc wear
- ❒Tighten wheel nuts
- ❒Inspect front and rear hub bearings for looseness
- ❒Check tyre pressure and wheels and tyres for damage
- ❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

- ❒Check clutch pedal travel and free play
- ❒Check steering wheel play
- ❒Check brake pedal travel and free play
- ❒Check park brake lever travel
- ❒Check park brake ratchet for wear or damage

ROAD TEST

- ❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

90,000 km *or* 4years & 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·9 hours for petrol engine
- 1·8 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

90,000 km *or* 4 years & 6 months SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Repack wheel bearings

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

100,000 km *or* 5 years Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 2·9 hours for petrol engine
- 2·2 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

- ❒Petrol: Change engine oil
- ❒Diesel: Change engine oil (every 5,000 km) and filter
- ❒Check for oil contamination
- ❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration
- ❒Diesel: Check idling speed and acceleration
- ❒Check idling speed and acceleration
- ❒Petrol: Replace timing belt
- ❒Check all hoses and pipes in engine compartment for deterioration or leaks
- ❒Clean front of radiator core and A/C condenser
- ❒Replace fuel filter
- ❒Replace air cleaner element
- ❒Check all V-drive belts for tension and damage
- ❒Diesel: Adjust valve clearance
- ❒Petrol: Inspect spark plug leads
- ❒Petrol: Inspect pre air cleaner

100,000 km *or* 5 years SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Inspect front and rear hub bearings for looseness

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

❒Check park brake lever travel

❒Check park brake ratchet for wear or damage

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

110,000 km *or* 5 years & 6 months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 1·1 hours for petrol engine
- 1·0 hours for diesel engine

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested. .....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Change engine oil and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Check all V-drive belts for tension and damage

❒Petrol: Inspect pre air cleaner

Servicing Dealer .....
Date of Service .....
Odometer .....
Signed .....
Additional Services performed .....

110,000 km *or* 5 years & 6 months SERVICE VALIDATION

UNDER VEHICLE OPERATIONS

❒Check level of manual transmission with transfer case oil

❒Check level of automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Check level of differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

120,000 km *or* 6 years Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take time approximately:

- 2·7 hours for petrol engine
- 3·2 hours for diesel engine
- add 0·2 hours for automatic transmission
- add 0·4 hours for manual transmission

There will also be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

Additional Services Requested.....

.....

.....

Signature .....Date .....

UNDER HOOD OPERATIONS

❒Petrol: Change engine oil

❒Diesel: Change engine oil (every 5,000 km) and filter

❒Check for oil contamination

❒Check all fluid levels: power steering, brake,washer, auto trans, clutch. Check/correct coolant level and % concentration

❒Check radiator cap pressure

❒Diesel: Check idling speed and acceleration

❒Check all hoses and pipes in engine compartment for deterioration or leaks

❒Drain coolant & refill with water & inhibitor (50% Glycol)

❒Clean front of radiator core and A/C condenser

❒Replace fuel filter

❒Replace air cleaner element

❒Check all V-drive belts for tension and damage

❒Diesel: Adjust valve clearance

❒Petrol: Replace spark plugs

❒Petrol: Inspect pre air cleaner

120,000 km *or* 6 years SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

Additional Services performed .....

UNDER VEHICLE OPERATIONS

❒Change clutch fluid

❒Change brake fluid

❒Change manual transmission with transfer case oil

❒Change automatic transmission transfer case oil

❒Inspect universal joints and splines for wear

❒Lubricate universal joints and sliding sleeve

❒Change differential gear oil (front and rear)

❒Inspect disc brake pads and disc wear

❒Tighten wheel nuts

❒Repack wheel bearings

❒Inspect front and rear hub bearings for looseness

❒Check tyre pressure and wheels and tyres for damage

❒General under body check: steering and suspension components, (inc. shock absorbers, all rubber bushes and boots, ball joints and connections) park brake cables, fuel system, exhaust system, brake system, bolts, nuts, hoses, pipes and for leaks

INTERIOR VEHICLE OPERATIONS

❒Check clutch pedal travel and free play

❒Check steering wheel play

❒Check brake pedal travel and free play

❒Check park brake lever travel

❒Check park brake ratchet for wear or damage

ROAD TEST

❒Check vehicle on the road for braking, steering, engine response and trans operation. Check cruise control, park pawl operation, A/C performance and neutral start switch.

To ensure continued interest in your vehicle, Holden's requests that owners who change their name or address, or subsequent owner's who purchase the vehicle, fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name / Address Ownership Change

PLEASE TICK☑ APPROPRIATE SQUARE

❑ NAME/ADDRESS CHANGE

❑ SUBSEQUENT OWNER

Owner's Name — Mr. / Mrs. / Miss. / Other ....

Address.....

Town.....

State .....Postcode .....

Registration No. .....

Vehicle Identification Number (I.S.O.V.I.N.) .....
(Refer Chapter 7 for location of I.S.O.V.I.N.)

Notice of Name / Address Ownership Change

PLEASE TICK☑ APPROPRIATE SQUARE

❑ NAME/ADDRESS CHANGE

❑ SUBSEQUENT OWNER

Owner's Name — Mr. / Mrs. / Miss. / Other ....

Address.....

Town.....

State .....Postcode .....

Registration No. .....

Vehicle Identification Number (I.S.O.V.I.N.) .....
(Refer Chapter 7 for location of I.S.O.V.I.N.)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

To ensure continued interest in your vehicle, Holden's requests that owners who change their name or address, or subsequent owner's who purchase the vehicle, fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name / Address Ownership Change

PLEASE TICK☑ APPROPRIATE SQUARE

❑ NAME/ADDRESS CHANGE

❑ SUBSEQUENT OWNER

Owner's Name Mr. Mrs. Miss. Other..... .....

Address.....

Town .....

State .....Postcode .....

Registration No. .....

Vehicle Identification Number (I.S.O.V.I.N.) .....
(Refer Chapter 7 for location of I.S.O.V.I.N.)

Notice of Name / Address Ownership Change

PLEASE TICK☑ APPROPRIATE SQUARE

❑ NAME/ADDRESS CHANGE

❑ SUBSEQUENT OWNER

Owner's Name Mr. Mrs. Miss. Other..... .....

Address.....

Town .....

State .....Postcode .....

Registration No. .....

Vehicle Identification Number (I.S.O.V.I.N.) .....
(Refer Chapter 7 for location of I.S.O.V.I.N.)

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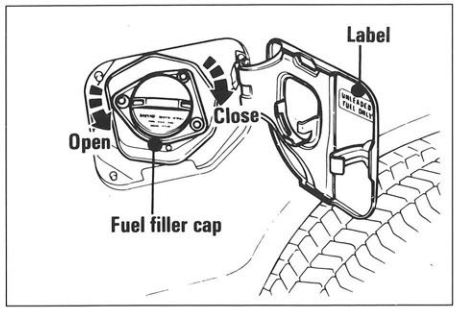
A release lever for the fuel filler flap is provided on the console, between the front seats. Pull the lever up to release the flap.

The petrol cap, located under the fuel flap is a screw-on ratchet type. After refilling, tighten the cap clockwise until a clicking noise is heard, before closing the flap.

Fuel tank capacity is approx 85 litres.



Overfilling of the fuel tank can affect the evaporative Emission Control System.

To avoid this, the following recommendations are made for both diesel and petrol engines:

1. Fuel tanks should always be filled at the intermediate or fast fill rate. After initial shut-off (or vent blow-back) no further fuel should be added. This retains the tank's ability to accommodate fuel expansion.
2. It is permissible to "trickle fill" fuel tanks where vehicles are to be driven for a distance of at least 50 kilometres shortly after the tank is filled. However, this is not recommended on hot days (over 30°C).

PETROL ENGINES

CAUTION: Petrol is extremely flammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected, without delay.

WARNING: To avoid possible damage to the injectors, fuel system additives are not recommended in these vehicles.

To reduce the exhaust pollutants in the atmosphere, your vehicle has been designed to operate on a good clean UNLEADED FUEL of at least 91 octane rating (Research Octane Number).

To ensure that the correct fuel is used, your vehicle has been fitted with a fuel filler nozzle restrictor. This allows the thinner, UNLEADED fuel filler nozzle to open the hinged flap, so that fuel may be added to the fuel tank. The leaded fuel filler nozzle is wider and therefore cannot open the flap.

DIESEL ENGINES

Use a good quality diesel fuel of at least 49 cetane rating. Note, if the diesel fuel tank is run completely dry the fuel system must be "bled", refer page 4-10.

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